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CONTEMPORARY ISSUES IN EDUCATION

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INTRODUCTION

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Education is the backbone of a nation. It is the standard of education that determines the progress of a country and the society at large. For a sustainable growth and development provision of quality education at all levels—primary, secondary as well as higher education—including teacher education, is a must.

Education in the emerging Indian society is seen as one of the ways to upward social mobility. It is considered as the foundation of a successful career. The growth of the Indian economy in the recent past and the impact of globalization on the society has been forcing the Indian government to accelerate the process of developing all the branches of the education system. The rapid trend towards a global society affects even the smallest and most remote villages in India. It challenges established values of society and puts forward several challenges.

This book, *Contemporary Issues in Education* has been divided into fourteen units. The book has been written in keeping with the self-instructional mode or the SIM format wherein each Unit begins with an Introduction to the topic, followed by an outline of the Objectives. The detailed content is then presented in a simple and organized manner, interspersed with Check Your Progress questions to test the student's understanding of the topics covered. A Summary along with a list of Key Words, set of Self-Assessment Questions and Exercises and Further Readings is provided at the end of each Unit for effective recapitulation.

BLOCK - I
SPECIALIZATION COURSES, GROWTH DIMENSIONS AND ITS RESOURCES

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UNIT 1 MULTIPLICITY OF COURSES

Structure

1.0 INTRODUCTION

Any educational or learning procedure in which the guide (educators, institutions, etc.) and the student (learners) are separated geographically is traditionally considered as Distance education. Also known in various terms such as distance teaching or open school learning or correspondence learning, it has existed for ages now. Educators and academics are of the opinion that correspondence education was first developed in the mid-nineteenth century in Europe and then spread to the United States and other countries in the world. In India, post-Independence, policy makers and planners realised the need to expand education to everywhere and even the remotest part of the country. It was realised that regular courses in classroom learning system are not enough to the growing need of learners who are residing in far off places where there are no colleges or institutions to cater to their needs. Thanks to open school learning system, now available in almost all states, a large number of students are getting educated every year. Today distance learning courses are available in almost every subjects in higher education and they are contributing tremendously to equip even those who can't afford regular classes in traditional mode of education which various universities

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and colleges are offering. Distance education has broken the geographical barriers; one can easily get education at one's own pace.

On account of advancement in communication technologies, E-learning is enhancing both formal and informal learning and knowledge through the use of computer-based electronic technologies of internet, e-mail, websites and CD-ROMS. E-learning includes Internet-based learning, Web-based learning and online learning. Now education can also be achieved through full-time and part-time association by students or learners. Then there are interdisciplinary, hybrid and interface courses that play a vital role in imparting education to students.

In addition to discussing the role of distance education and E-learning, this unit also explains interdisciplinary, hybrid and interface courses and their significance in education.

1.1 OBJECTIVES

After going through this unit, you will be able to:

- Explain the multiplicity of courses in education
- Understand the concept and the role of distance learning courses
- Analyse the significance of E-learning courses in education
- Learn about full-time or part-time courses
- Discuss interdisciplinary and hybrid courses
- Recognise the significance of interface courses

1.2 TRADITION AND OFF-SHOOT SPECIALIZATION COURSES

Let us begin our discussion with distance learning courses.

1.2.1 Distance Learning Courses

India, after 1947, has made major changes and a great advancement in its education system. Earlier the education was available only to the high class people of India, and many poor and middle class people remained uneducated. There was an enormous pressure on multiple state governments by common people to establish more and more colleges, institutes and universities. This pressure has resulted in faster growth of higher education in India. But the only disadvantage is that this development is more emphasized on quantity then quality, all because of the increased demand. Therefore, a complimentary methodology was needed in terms of ensuring quality education and success. And distance learning is one kind.

Distance education was appreciated by many reputed universities to meet the increasing expectations of those candidates who had insufficient resources to pursue higher education through regular method. And hence, distance learning in India has become most popular today. There were a lot of barriers in the formal education system, which many students are not able to cope with. Now, they are getting attracted towards distance education. Convenient education, study from home, high quality, less cost and earning while learning, are some of the most significant benefits of distance learning. And that's why it is growing so rapidly in India.

Distance learning (education) is a modern system of non-formal education. It is imparted through correspondence or postal courses, electronics media like radio, television, video and audio cassettes and other audio-visual aids.

Most of the commonly known terms used for distance learning are:

- Distance Education
- Distance Teaching
- Open Education
- Open Learning
- Open School
- Open University
- University of the Air
- University without Walls
- Tele University
- Out of School Education
- Correspondence Learning
- Correspondence Teaching
- Correspondence School

Distance education is the method of learning at one's own pace in one's own time, without the boundaries of the formal class room and without the formal presence of the teacher. The concept of distance learning has emerged in various advanced countries of the world.

The following points highlight the need and importance of distance education:

(i) Explosion of knowledge

There is explosion of knowledge because of rapid scientific and technological developments. The formal system of education on account of its rigidity and high

cost, finds it difficult to incorporate new changes speedily as desired.

(ii) Population Explosion

Unprecedented growth rate of population has resulted in the corresponding increase in students. The formal education system serves a selected and limited number of students.

(iii) Varied Needs

Distance learning is needed to satisfy the varied needs of varied students.

(iv) Earning while Learning

Distance education is especially needed for those who want to learn while learning.

(v) Desire to Improve Qualifications

There are many people who want to improve their education qualification while they are in jobs. Distance learning provides opportunities to such people to improve their qualifications.

(vi) Geographical Isolation

People may be geographical isolated because of distance or because a communication system has not been developed.

(vii) Social Isolation

People may be socially isolated or disadvantaged due to financial, physical, emotional or family circumstances.

(viii) For Different Ages

Distance learning can be used to teach people of different ages and to teach courses from a wide range of discipline areas.

(ix) Universal Education

Distance learning is needed to achieve the cherished goal of the nation for universalization of education.

(x) Democratic Aspirations

Distance learning is needed to meet the great demand for democratisation of education from those sections of society that are neglected.

(xi) Self-Improvement

Distance learning is needed from the point of view of self-learning and self-improvement of an individual who, otherwise is deprived of receiving proper education.

(xii) Boon for In-Service Aspirants

Open universities is a boon for in- service aspirants. They can improve their educational qualifications and by doing so, they can brighten up their chances of promotion.

(xiii) Easy Access

It provides opportunities to large number of people who had previously been denied such opportunities.

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Today, distance learning is in demand. Because of increasing student's fees and decreased public funding for higher education, education is going less accessible. Now Distance learning education has become a necessary part of educational system. Distance education provides education to those students who have not been able to attend classes or universities due to some problems. Nowadays, both developed and developing countries consider distance education as a new approach of education which allows to get their degree to those learners who have not been able to complete their degree via regular courses.

The main challenges of Distance Education

The main challenge of distance learning is that you cannot get real time feedback from the students and teachers. There are some other challenges with distance learning education which are as follows:

- How to improve the quality and quantity of education provided
- How to create a skilled and qualified workforce to meet the demands of learners.
- How to increase the possibility of research in large or small institutions
- How to manage education and entrepreneurship in distance learning
- You may struggle with online classes.

1.2.2 E-Learning and Online Courses

Online courses are those in which at least 80 percent of course content is delivered online. Blended (sometimes called hybrid) instruction has between 30 and 80 percent of the course content delivered online with some face-to-face interaction. Blended and online courses don't only change how content is delivered, they also redefine traditional educational roles and provide different opportunities for learning. The online classroom is a potentially powerful teaching and learning arena in which new relationships can make significant contributions to learning. In order to harness the power this creates in education, instructor must be trained not only to use technology but also to shift the ways in which they organize and deliver material. Making this shift can increase the potential for learners to take charge of their own learning process and facilitate the development of a sense of community among them.

When facilitated effectively, online education can not only match, but also surpass traditional face-to-face learning (Means et al., 2010).

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Here are some of the potential benefits of online education:

- **Learner-Centred Education**: Palloff and Pratt (2013) explain that an effective online instructor is someone "who is open to giving up control of the learning process" by making students active participants in their learning process (p. 24). A learner-centered approach acknowledges what students bring to the online classroom—their background, needs, and interests—and what they take away as relevant and meaningful outcomes. With the instructor serving as facilitator, students are given more control and responsibility around how they learn, including the opportunity to teach one another through collaboration and personal interactions (Palloff & Pratt, 2013).
- **Collaborative & Interactive Learning**: Research has found that online instruction is more effective when students collaborate rather than working independently (Means et al., 2010; Schutte, 1996). There are a variety of ways for students to collaborate online, including synchronous and asynchronous discussions and small group assignments. In addition, the relative anonymity of online discussions helps to create a "level playing field" for quieter students or those from typically marginalized groups. When posed questions in advance, students have the opportunity to compose thoughtful responses and have their voices heard, as well as respond to one another in a manner not usually afforded by face-to-face instruction (Kassop, 2003).
- **Metacognitive Awareness**: Since online learners have more autonomy and responsibility for carrying out the learning process, it's important that students understand which behaviours help them learn and apply those strategies proactively. This awareness and knowledge of one's personal learning process involves increased metacognition—a key practice for student success (Bransford, Brown & Cocking, 2000).
- **Increased Flexibility**: Online learning offers more flexibility because students can control when and where they learn. By self-monitoring their time and pacing, students are able to spend more time on unfamiliar or difficult content (Aslanian & Clinefelter, 2012).
- **Immediate Feedback**: Online learners generally have greater access to instructors via email and are able to have questions answered by their peers in a timely fashion on discussion boards. In addition, online tests and quizzes can be constructed with automatic grading capability that provides timely feedback (Kassop, 2003). Immediate and continual feedback throughout the learning process is beneficial for gaining understanding of difficult concepts, as well as triggering retrieval mechanisms and correcting misconceptions (Thalheimer, 2008).

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- **Multimodal Content**: The Internet provides an abundance of interactive and multimodal materials that can be used to increase engagement and appeal to diverse learners. With a click, you can learn about specific ways to deliver multimodal content online, including through videos, podcasts, screencasts, video conferencing, and presentation software.

E-learning is an approach to facilitate and enhance learning through, and based on, both computer and communication technology. It refers to the use of computer-based electronic technologies of internet, e-mail, websites and CD-ROMs to deliver, facilitate and enhance both formal and informal learning and knowledge sharing from any place at any time. The communication devices can also include digital television, personal digital assistants (PDAs) and mobile phones. E-learning is also called Computer-Based Training (CBT). Generally, CBT and e-learning are treated as synonyms, but CBT is the older term dating from the 1980s. The term 'e-learning' evolved from CBT along with the maturation of the internet, CDs and DVDs. It includes Internet-based Learning, Web-based Learning and Online Learning.

E-learning is significant in the following ways:

- It enables flexible learning where just-in-time learning is possible. It is a means to effective and efficient learning due to its ease of access and the pace being determined by the learner.
- It facilitates collaborative internet and web-based learning opportunities to the learners.
- It supports distance learning with wide area networks (WAN). It addresses the practical side of learning by organizing the topics to be taught and creating multimedia CD-ROMs or websites. An important advantage is that hyperlinking is possible and having interactive parts illustrating difficult things or for doing exercises is also possible. It allows a wider range of learning experiences, such as, educational animation to online learners.
- It imparts e-training through the asynchronous and synchronous communication modes, permitting the learners the convenience of flexibility. Asynchronous learning uses technology such as blogs, wikis and discussion boards to allow participants to contribute when time allows. Synchronous activities allow all participants to join in at once with a chat session or a virtual classroom or meeting.
- It develops the role competencies of the personnel in an organization through the use of electronic media. Specialized training is rendered through customized software, which addresses the particular needs of the clientele mostly through the synchronous mode on dedicated broadband internet connectivity. Equally, it also renders training to the learners through the generic

software displaying universal contents in asynchronous mode to the learners through a shared network with limited Internet access or on World Wide Web.

- It enhances teaching by professional development of teachers through training on usage of ICT in education. E-learning system like World Links enables the teachers to integrate technology into teaching and thus create dynamic student-centred learning environment in classrooms. The faculties can also interact with their peer groups in the world and exchange ideas and notes on the subject. Hence, as explained by Gupta and Singhal, e-learning is a planned effort towards providing interactive and experiential learning; flexibility in terms of time, place and pace; participation and accessibility; expertise and qualitative subject matter; best resource at the learners' doorsteps and personalized training; and centres round the trainees.

There are some limitations in e-learning. These are as follows:

- Lack of knowledge and skills for the use of multimedia among learners may prove futile in taking advantages from the valuable service of e-learning.
- Lack of accessibility to the needed resources, tools and equipment like computers internet and web services for students might not be affordable in terms of cost is also another problem.
- Lack of provision of pre-service training for getting acquainted with the skills of using e-learning is also a problem.
- There is no proper provision of training programmes for teachers and students for getting acquainted with the skills required on their part for the use of e-learning. As a result, the teachers neither have any inclination towards e-learning nor have any competence to use it.

Due to the rapid evolution in technology and knowledge-based competitive society, the students, teachers and other staff of distance education system require the support and services for the existing system of education and instruction through properly organized and guided system of e-learning and e-courses.

1.2.3 Full-Time or Part-Time Courses

The moot question is: Which form is better to choose?

In order to make the right choice, the applicant should know the basic differences between full-time and part-time courses, their pros and cons.

Many students say that those who do not study in full-time education do not know all the charms of student life. This is true, because the groups of part-time students, during the session, are far less cohesive than groups of full-time education. The main advantage of distance education is the presence of large amounts of free

time that students can use as they wish, including for earning money. Most of the students prefer the part-time department for the opportunity to work. Students of a full-time education do not have enough time to work, and if someone finds a job, there is usually a significant impact on his/her academic progress.

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Positive aspects of full-time study

1. Full-time form of education involves attending classes, i.e. regular attendance of lectures and seminars on the schedule. The study of teaching material is more in depth because it stands out more hours.
2. During training, the student is in constant contact with the teachers, which allows discussing, asking questions if something is unclear.
3. During the full-time education, student gets deeper basic, theoretical knowledge. Deep theoretical knowledge base after getting a good practice leads to high professionalism.
4. In the course of study, the student contacts with the teacher and then well-respected students often receive offers to attend post-graduate school, and having practice in the specialty, the student has the opportunity to be hired later by this employer.

Positive aspects of part-time education (distance learning)

1. Part-time students can earn a living, to turn out their seniority for pension without losing years in their plan.
2. During the semester, part-time students do not have to attend lectures, they get time to study independently.
3. During the studies, students' parents do not have to bear such costs as in full-time education. In addition, the student may work and pay for a college education by himself.
4. During part-time study and work in their chosen profession, student can learn to apply theoretical knowledge in practice and get valuable practical experience.

Negative aspects of full-time study

1. The learning process is separated from employment, which does not allow teaching students to apply theoretical skills into practice.
2. After graduating, students do not have practical experience, as employers seek to recruit people who have hands-on experience.
3. Today, this form of education cannot be affordable for everyone. Parents of students have to pay large sums annually for tuition, rental apartments, travel, meals, so for many it is financially difficult or impossible.

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4. The small volume of the curriculum that the student studies basically on his own, and so, it is hardly possible to obtain in-depth knowledge by distance learning, especially if the student is not working in some field.
5. Employers critically assess distance learning.
6. There are specialties training which is only available for full-time education, for example in medical schools.

It is believed that for students of part-time education, it is much easier to learn, load is a little and training schedule can be individually arranged. As a result, there is poor knowledge. However, it is actually not the case. After all, the desire to learn depends on the student. And for years of full-time study students can attend higher institution, but do not learn the material, and "fill up" exams. In general, graduates of part-time education have the same rights as full-time students. Both forms of learning provide many opportunities to build a future life. It is, therefore, important to determine, based on personal situation in life that suits the best.

1.2.4 Interdisciplinary Courses

Interdisciplinary studies involve combining disciplines or subjects together in new ways in order to answer a question or solve a problem that cannot be satisfactorily addressed using the approaches or methods of only one discipline or subject. It's about more than mixing and matching topics; it's about problem solving.

The world today demands a well-rounded individual who can pose questions and solve problems across the disciplines. To be a world expert on the growth of cities, for example, it would be best to know something about history, geography, engineering, politics and health. This illustrates an important reality – to study some things in proper depth, you need to combine existing subjects in interdisciplinary ways. The concept is nothing new – over the course of history, disciplines change frequently. Some come and go, depending on the issues of the day, and others are unrecognizable from 100, or even 30 years ago. Some current examples of interdisciplinary studies at the post-secondary level are in assistive technologies, creativity in educational practice, education for the environment, and promoting resiliency in children with ADHD.

Why teach with an interdisciplinary approach

Interdisciplinary teaching increases student learning: Engaging students and helping them to develop knowledge, insights, problem-solving skills, self-confidence, self-efficacy, and a passion for learning. These are common goals that educators bring to the classroom, and interdisciplinary instruction and exploration promotes realization of these objectives. Repko (2008) asserts that interdisciplinary instruction fosters advances in cognitive ability and other educational researchers have

identified a number of distinct educational benefits of interdisciplinary learning including gains in the ability to:

- Recognize bias
- Think critically
- Tolerate ambiguity
- Acknowledge and appreciate ethical concerns

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Interdisciplinary teaching promotes significant learning

Facilitating meaningful and lasting learning experiences is what significant learning is all about. When teachers impart students with a range of skills and insights about the learning process and when the work is engaging and meaningful to students, greater learning occurs.

Fink identifies six elements that lead to significant learning. Note that each is a common feature of interdisciplinary forms of instruction:

1. **Foundational Knowledge** – Acquiring information and understanding ideas
2. **Application** – Acquiring an understanding of how and when to use different skills
3. **Integration** – The capacity to connect ideas
4. **Human Dimension** – Recognition of the social and personal implications of issues
5. **Caring** – Acknowledgement of the role of feelings, interests and values
6. **Learning how to learn** – Obtaining insights into the process of learning

Interdisciplinary instruction fosters the acquisition of foundational knowledge, promotes integration of ideas from multiple disciplines and provides insight on how to apply knowledge all of which advance a student understands of how to learn. Moreover, students are encouraged to account for the contribution of disciplines that highlight the roles of caring and social interaction when analysing problems.

When teachers design interdisciplinary studies, it is important to be selective about what is in and what is out. Here teachers need to attend to what approaches and methods are required in order to solve the problem or carry out the investigation. Avoid the temptation to focus the interdisciplinary study around a theme. Sometimes teachers find themselves laminating math facts on the rings of Saturn. This would be an investigation gone wrong. It may be cute and appealing to the eye, but it has nothing to do with the mathematics that makes space exploration possible or engaging. Authentic work across subjects allows the big questions to weave in and out in a sensible and compelling way. There will be times that the

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work in defining understanding of the topic seems to slip into the background as you work on tasks and activities that allow students to develop their understanding of fundamental concepts. Questions and issues relevant to the topic move to the foreground when it's appropriate. Connections are built and explored, not forced.

1.2.5 Hybrid Courses

With more and more pressure being put on institutions of higher education to provide both greater access to programs and reduce costs, more and more universities and colleges have been embracing the role of distance education progress and online courses. While the quality of online courses have continued to improve over the past decade, and while many students do quite well within the online learning environment, opponents of online learning have long argued for the continued need for the face-to-face atmosphere and interactive environment that is important in the learning process for so many students. Within the context of this pedagogical and technology tension, the hybrid course (partially online, partially face-to-face) has been born.

Hybrid or blended learning courses are defined as "classes in which instruction takes place in a traditional classroom setting augmented by computer-based or online activities which can replace classroom seat time". Jeffrey R. Young opined that "… a growing number of colleges are experimenting with "hybrid" or "blended" models of teaching that replace some in-person meetings with virtual sessions". Scida and Saury further argue that hybrid courses "… are becoming more and more the norm in higher education in the United States as earlier predictions of the explosion of completely online courses have not been borne out in practice". Furthermore, Young argues that hybrid classes are less controversial among university faculty than offering traditional fully virtual courses and that "… hybrid courses may be a better way than fully online courses to help busy commuter students". Many proponents of hybrid courses say their main motivation is to improve the educational experience for students and to relieve limited resource pressures on college campuses, pointing to research that demonstrates that using blended learning improves student success rates in learning outcomes and retention and that hybrid courses alleviate campus classroom shortages and enrolment pressures.

Chuck Dziuban, director of the Research Initiative for Teaching Effectiveness at the University of Central Florida, says that his office's research shows that student success rates in hybrid courses on the Central Florida campus are "equivalent or slightly superior" to face-to-face courses, and that the hybrid courses have lower dropout rates than do fully online courses. Over the past decade, there have been many advances in the technology and pedagogy of hybrid, or blended learning, courses. Moore and Moore and Kearsley have looked at the

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role of blended learning within the distance education landscape and Staker has examined the role the disruptive innovation of online learning in the world of education. Additionally, Tucker looked specifically at emerging technologies that are continuing to enhance student-centred classrooms and Bonk and Graham have looked at the recent practices and trends in blended learning from a global perspective.

More recently, Adams examined which blended learning strategy maximized learning outcomes and job impact and found that contextual factors are highly significant in looking at differences across four research groups. Additionally, Akyol and Garrison and Akyol, Vaughan, and Garrison emphasized the role of community building and development of a community of inquiry in order to increase effectiveness and success of online teaching and learning. Akyol and Garrison found significant relationships among teaching presence, cognitive presence and social presence, and students' perceived learning and satisfaction in the course. Finally, Aycock et al. argue that "The power of the hybrid course model is its flexibility and its pedagogical effectiveness. Because it emphasizes active learning techniques, it increases student interaction with other students and the instructor."

Additionally they concluded the following 10 key lessons on offering effective hybrid courses:

Lesson #1: There is no standard approach to a hybrid course.

Lesson #2: Redesigning a traditional course into a hybrid takes time.

Lesson #3: Start small and keep it simple.

Lesson #4: Redesign is the key to effective hybrid courses to integrate the face-to-face and online learning

Lesson #5: Hybrid courses facilitate interaction among students, and between students and their instructor.

Lesson #6: Students don't grasp the hybrid concept readily.

Lesson #7: Time flexibility in hybrid courses is universally popular.

Lesson #8: Technology was not a significant obstacle.

Lesson #9: Developing a hybrid course is a collegial process.

Lesson #10: Both the instructors and the students liked the hybrid course model.

1.2.6 Interface Courses: Issues and Significance

In 1989, Michael Moore identified three kinds of interactions that supported online learning — interaction with content, interaction with instructors, and interaction among peers — which have proved useful constructs for thinking about online learning up to the present. Not long thereafter, Hillman, Willis, and

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Gunawardena noted that new and emergent technologies had, at least temporarily, created a fourth type of interaction, learner-interface interaction, which they defined as the interaction that takes place between a student and the technology used to mediate a particular distance education process. Interface thus refers to specific technologies, platforms, applications, and course templates students must use to interact with course content, instructors and classmates.

Ten years later, interfaces no longer represent the kinds of barriers to interaction they once did, but it is becoming increasingly clear that interactions with interfaces significantly afford and/or constrain the quality and quantity of the other three interactions. Swan, Bowman, Vargas, Schweig and Holmes, for example, developed a user-response model of the ways in which people make sense of electronic texts based on rich observations of students searching them for information. Their grounded research found that, unlike printed texts which most readers interpret singly, users engage electronic texts at three levels, each of which affect meaning making — the content or page level, the design or website level, and the platform and browser level. These last two levels represent issues of interface. Students not only needed to navigate and make sense of each of these levels before they could process content, but how they interacted with platforms/browsers and the structure of particular websites affected the meanings they eventually developed from the content of those websites.

I. Interface Issues and Interaction with Content

Interaction with content refers to the learners' interaction with the knowledge, skills and attitudes being studied. In general, this has to do with the learners' interaction with the course materials. It is thus primarily concerned with course design factors. These, of course, include course interfaces. Measurement of online content learning has been undertaken in terms of performance (course grades, exams, written assignments, etc.) and perceptions of learning by students and faculty. Most of this research has involved comparisons of learning online with learning in traditional classrooms, and most of that has found no significant differences in learning outcomes between the two modes of learning. Because real-time negotiation of meaning is impossible among instructors and students separated by space and time, clarity of meaning is more important in online classes. Consistent, transparent, and simple course structures add to such clarity as well as insure that learners only have to adapt to course structures once.

A growing focus in research on the effects of interface and interface design on online student learning involves the use of a variety of media to deliver course content. Researchers, designers and practitioners are beginning to ask what combinations of text, pictures, animations, audio and video best support student learning. Richard Mayer has been studying these issues for the past fifteen years in experimental studies of students' understanding of how scientific systems work. In over 20 separate investigations, Mayer and his colleagues meticulously tested the

multimedia conditions which resulted in the greatest transfer of learning from differing presentations of scientific explanations. Mayer made similar comparisons of differing combinations of media and variations in multimedia presentations and replicated his results multiple times in all cases. Findings from this work are summarized in Table 1.1 which shows both research results (research effect) and practical applications of the findings (design principle).

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Table 1.1 *Effects and Principles of Multimedia Design adapted from Mayer, 2001*

	RESEARCH EFFECT	DESIGN PRINCIPLE When designing multimedia, ...
MODALITY	better transfer from animation and narration than from animation and text	...present explanations of animations in spoken form.
CONTIGUITY	better transfer when narration and animation are presented simultaneously rather than sequentially	...present narration and animation simultaneously.
MULTIMEDIA	better transfer from animation and narration rather than from narration alone	...provide narration for animations.
PERSONALIZATION	better transfer when narration is conversational rather than formal	...present narration in a conversational style.
COHERENCE	better transfer when irrelevant video, narration, and/or sounds are excluded	...avoid extraneous video and audio.
REDUNDANCY	better transfer from animation and narration than from animation, narration and on-screen text	...do not add text to presentations involving animations with narration.
PRETRAINING	better transfer when explanations of system components precedes rather than follows a narrated animation	...begin explanations with concise descriptions of system components
SIGNALLING	better transfer when different parts of a narration are signalled	...include signalling that identifies the organization of the presentation.
PACING	better transfer when the pace of presentation is learner controlled	...allow the learner to have control over the pace of the presentation.

The results of these studies of particular interfaces may suggest ways in which interfaces can be designed to better support student learning. Further research of this sort will add to our knowledge of how we can better design course interfaces to support learning and is certainly indicated.

II. Interface Issues and Interaction with Instructors

A second type of interaction in online environments occurs between learners and their instructors. In any educational setting, the instructor serves as an expert who plans instruction to stimulate students' interests, motivates their participation in the learning process, and facilitates their learning. The relationship between instructor/student interactions and learning outcomes has been well documented in traditional classrooms.

Riccomini investigated pre-service education students' application of behaviour-analysis and instructional-analysis skills on criterion tasks after receiving either instructor-delivered corrective feedback on a similar task or being directed

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to a web-based exemplary model that students had to then compare with their own solutions to the task. Riccomini used an experimental, counter-balanced design in which students were randomly assigned to groups who received one type of feedback for one of the tasks and the other type of feedback on the other. He found that students receiving instructor delivered corrective feedback significantly outscored students using web-based model comparison feedback on both tasks.

Researchers at Michigan State University made a similar comparison of instructor-delivered and web-based assignment feedback. They compared the performances of undergraduate physics students using an instructor supported discussion forum for help with assignments with the performance of students using a third party website where assignment solutions were given. This is an interesting study because it examines learning from real-world, web-based applications. The Michigan State Physics Department created a program to generate individualized homework assignments. In response, former students created a web application that generated answers with explanations to those problems. This study compared the performance of students using this third party site for help with their homework with the performance of students who took advantage of an instructor supported discussion site where they could get help on their homework from graduate assistants (GAs). The results of this and the previous study indicate that web-based explanations of homework may not support conceptual learning without instructor interaction and feedback, at least with undergraduate populations. These thus may argue against certain kinds of automated interfaces.

III. Interface Issues and Interaction among Classmates

Socio-cognitive theories of learning maintain that all learning is social in nature and that knowledge is constructed through social interactions. Online education seems particularly well situated to support such social learning because of the unique nature of asynchronous course discussions. Many researchers have found that students perceive online discussion as more equitable and more democratic than traditional classroom discourse. In addition, because it is asynchronous, online discussion affords participants the opportunity to reflect on their classmates' contributions while creating their own writing before posting it. This tends to create a certain mindfulness and a culture of reflection in online courses.

Check Your Progress

1. Why is Distance education getting popular today in India?
2. List some of the challenges that Distance education is facing today.
3. What do you mean by E-learning courses in education?
4. How can online education be made a powerful teaching method?
5. Which are the positive aspects of full-time study?
6. What do interdisciplinary studies involve?

1.3 ANSWERS TO CHECK YOUR PROGRESS QUESTIONS

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1. Distance education was appreciated by many reputed universities to meet the increasing expectations of those candidates who had insufficient resources to pursue higher education through regular method. And hence, distance learning in India has become most popular today. There were a lot of barriers in the formal education system, which many students are not able to cope with. Now, they are getting attracted towards distance education. Convenient education, study from home, high quality, less cost and earning while learning, are some of the most significant benefits of distance learning. And that's why it is growing so rapidly in India.
2. The main challenge of distance learning is that you cannot get real time feedback from the students and teachers. There are some other challenges with distance learning education which are as follows:
   - How to improve the quality and quantity of education provided
   - How to create a skilled and qualified workforce to meet the demands of learners.
   - How to increase the possibility of research in large or small institutions
   - How to manage education and entrepreneurship in distance learning
   - You may struggle with online classes.
3. E-learning is an approach to facilitate and enhance learning through, and based on, both computer and communication technology. It refers to the use of computer-based electronic technologies of internet, e-mail, websites and CD-ROMS to deliver, facilitate and enhance both formal and informal learning and knowledge sharing from any place at any time. The communication devices can also include digital television, personal digital assistants (PDAs) and mobile phones. E-learning is also called Computer-Based Training (CBT). Generally, CBT and e-learning are treated as synonyms, but CBT is the older term dating from the 1980s. The term 'e-learning' evolved from CBT along with the maturation of the internet, CDs and DVDs. It includes Internet-based Learning, Web-based Learning and Online Learning.
4. The online classroom is a potentially powerful teaching and learning arena in which new relationships can make significant contributions to learning. In order to harness the power this creates in education, instructor must be trained not only to use technology but also to shift the ways in which they organize and deliver material. Making this shift can increase the potential

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for learners to take charge of their own learning process and facilitate the development of a sense of community among them. When facilitated effectively, online education can not only match, but also surpass traditional face-to-face learning.

5. Positive aspects of full-time study are:
   (i) Full-time form of education involves attending classes, i.e. regular attendance of lectures and seminars on the schedule. The study of teaching material is more in depth because it stands out more hours.
   (ii) During training, the student is in constant contact with the teachers, which allows discussing, asking questions if something is unclear.
   (iii) During the full-time education, student gets deeper basic, theoretical knowledge. Deep theoretical knowledge base after getting a good practice leads to high professionalism.
   (iv) In the course of study, the student contacts with the teacher and then well-respected students often receive offers to attend post-graduate school, and having practice in the specialty, the student has the opportunity to be hired later by this employer.
6. Interdisciplinary studies involve combining disciplines or subjects together in new ways in order to answer a question or solve a problem that cannot be satisfactorily addressed using the approaches or methods of only one discipline or subject. It's about more than mixing and matching topics; it's about problem solving. Interdisciplinary instruction fosters the acquisition of foundational knowledge, promotes integration of ideas from multiple disciplines and provides insight on how to apply knowledge all of which advance a student understands of how to learn. Moreover, students are encouraged to account for the contribution of disciplines that highlight the roles of caring and social interaction when analysing problems.

1.4 SUMMARY

- India, after 1947, has made major changes and a great advancement in its education system. Earlier the education was available only to the high class people of India, and many poor and middle class people remained uneducated.
- Distance education was appreciated by many reputed universities to meet the increasing expectations of those candidates who had insufficient resources to pursue higher education through regular method.
- The online classroom is a potentially powerful teaching and learning arena in which new relationships can make significant contributions to learning. In

order to harness the power this creates in education, instructor must be trained not only to use technology but also to shift the ways in which they organize and deliver material.

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- Palloff and Pratt explain that an effective online instructor is someone "who is open to giving up control of the learning process" by making students active participants in their learning process.
- Research has found that online instruction is more effective when students collaborate rather than working independently.
- Since online learners have more autonomy and responsibility for carrying out the learning process, it's important that students understand which behaviours help them learn and apply those strategies proactively.
- The Internet provides an abundance of interactive and multimodal materials that can be used to increase engagement and appeal to diverse learners.
- Many students say that those who do not study in full-time education do not know all the charms of student life. This is true, because the groups of part-time students, during the session, are far less cohesive than groups of full-time education
- It is believed that for students of part-time education, it is much easier to learn, load is a little and training schedule can be individually arranged. As a result, there is poor knowledge. However, it is actually not the case. After all, the desire to learn depends on the student.
- Interdisciplinary studies involve combining disciplines or subjects together in new ways in order to answer a question or solve a problem that cannot be satisfactorily addressed using the approaches or methods of only one discipline or subject.
- Interdisciplinary teaching increases student learning: Engaging students and helping them to develop knowledge, insights, problem-solving skills, self-confidence, self-efficacy, and a passion for learning.
- Facilitating meaningful and lasting learning experiences is what significant learning is all about. When teachers impart students with a range of skills and insights about the learning process and when the work is engaging and meaningful to students, greater learning occurs.
- Interdisciplinary instruction fosters the acquisition of foundational knowledge, promotes integration of ideas from multiple disciplines and provides insight on how to apply knowledge all of which advance a student understands of how to learn.
- With more and more pressure being put on institutions of higher education to provide both greater access to programs and reduce costs, more and

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more universities and colleges have been embracing the role of distance education progress and online courses.

- Hybrid or blended learning courses are defined as "classes in which instruction takes place in a traditional classroom setting augmented by computer-based or online activities which can replace classroom seat time".
- Chuck Dziuban, director of the Research Initiative for Teaching Effectiveness at the University of Central Florida, says that his office's research shows that student success rates in hybrid courses on the Central Florida campus are "equivalent or slightly superior" to face-to-face courses.
- More recently, Adams examined which blended learning strategy maximized learning outcomes and job impact and found that contextual factors are highly significant in looking at differences across four research groups.
- In 1989, Michael Moore identified three kinds of interactions that supported online learning — interaction with content, interaction with instructors, and interaction among peers — which have proved useful constructs for thinking about online learning up to the present.
- Interaction with content refers to the learners' interaction with the knowledge, skills and attitudes being studied. In general, this has to do with the learners' interaction with the course materials. It is thus primarily concerned with course design factors. These, of course, include course interfaces.
- A growing focus in research on the effects of interface and interface design on online student learning involves the use of a variety of media to deliver course content. Researchers, designers and practitioners are beginning to ask what combinations of text, pictures, animations, audio and video best support student learning.
- Riccomini used an experimental, counter-balanced design in which students were randomly assigned to groups who received one type of feedback for one of the tasks and the other type of feedback on the other.

1.5 KEY WORDS

- **Distance education:** This is the education of students who may not always be physically present at a school. Traditionally, this usually involved correspondence courses wherein the student corresponded with the school via post. Today it involves online education.
- **Geographical isolation:** This is a term that refers to a population separated from exchanging genetic material with other organisms of the same species.

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- **Wide area network (WAN):** This is a telecommunications network that extends over a large geographical area for the primary purpose of computer networking. Wide area networks are often established with leased telecommunication circuits.
- **A part-time learner:** He/she is a non-traditional student who pursues higher education, typically after reaching physical maturity, while living off-campus, and possessing responsibilities related to family and/or employment.
- **Interdisciplinary approach:** This is an approach to curriculum integration that generates an understanding of themes and ideas that cut across disciplines and of the connections between different disciplines and their relationship to the real world.

1.6 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. State the basic concept behind distance education.
2. Mention the need for distance learning courses in education.
3. How does E-learning enhance teaching?
4. Write in brief about the limitations in e-learning.
5. How does interdisciplinary teaching promote significant learning?
6. What is the significance of interface courses in education?

Long-Answer Questions

1. Discuss the evolution of distance education in India and the world.
2. Analyse the potential benefits of online education.
3. Discuss the relevance of an interdisciplinary approach to education.

1.7 FURTHER READINGS

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UNIT 2 GROWTH DIMENSIONS

Structure

2.0 INTRODUCTION

There is no denying the fact that education is the most effective instrument to bring in socio-economic changes that propel all-round development in the society. No country can flourish and develop if it doesn't invest in education and ensure that its human resources are enriched with quality education at various levels. Acknowledging this reality, policy makers and planners have stressed the need for raising the level of education from the very beginning, from pre-primary to higher secondary and above. As the development of a nation depends on the quality of education that it provides, Planning Commission was constituted in India to monitor the educational and other developmental activities. In India, education is in the Concurrent List of the Constitution and both the Centre and States have been working in collaborative partnership for reconstruction of education. Planning Commission is tasked with implementation and monitoring of Five-Year Plans. In the Eighth and Ninth Five-Year, much stress was laid on elementary and primary education through the ambitious project like universal elementary education of 'Education for All' by 2000. The main objective of the twelfth plan was to expand education at every level and give momentum to technical and professional education programmes.

There has been tremendous growth in student strength and enrolment in various levels of higher education in India from across the States. Universities are now competing to attract the most talented students who come from different

social, economic and academic background. This led to the emergence of heterogeneous grouping. The growth of institutions further led to the understanding and necessity of both quantitative and qualitative aspects of education.

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While analyzing the growth of institutions, this unit puts into perspective the growth of student strength, heterogeneity of student population and quantity vs. quality issues in educational development.

2.1 OBJECTIVES

After going through this unit, you will be able to:

- Analyse growth in institutions at various levels
- Recognize growth in student strength
- Understand heterogeneity of student population
- Discuss quantity vs. quality issues in educational development

2.2 GROWTH IN INSTITUTIONS AT ALL LEVELS

> "*Education is the most powerful weapon which you can use to change the world*"
>
> –Nelson Mandela.

Education is a dynamic process that starts from birth. It is a mirror of the society and base of the socio-economic development. It transforms human beings from ignorance to enlightenment; from under development to faster economic and social development. It is an important factor that drives both social changes and economic growth. The development of a strong nation requires that the human resources of the country are endowed with higher level of education, skill and specialization.

The recently released United Nations Development Report 2011 ranked India 134 out of 187 countries. It also presents a strong case for governments all over the world to encourage human mobility. While economic growth is extremely important, it has to be accompanied by improvement in the quality of the life of the people for the development process to be suitable in the medium in the long run. More importantly, it has to be inclusive in nature. Education is the single most important instrument for social and economic transformation. Education has been well rooted in Indian society since ancient times with several well-known centres of learning which no longer exist today.

School Education

The structure of education in the state is based on the national level pattern with 12 Years of schooling (10+2+3). It consists of eight years of elementary education, that is, five years of primary and three years of middle school education for the age groups of 6-11 and 11-14 years, respectively. This is followed by secondary

and higher secondary education of two years each. The higher secondary school certificate enables pupils to pursue studies either in universities or in colleges for higher education in general academic streams and in technical and professional courses.

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2.2.1 Educational Plans and Policies

The development of a nation depends upon its mode of education. Growth of a young nation like India depends upon its educational approach. It was felt that society would have to resort to modernization to educate itself. It would have to endeavour to create, in order to raise the educational level of common citizen, a class of educated persons containing individuals from every section of society, whose beliefs and aspirations move the deepest imprint of Indians. In a democracy, the end is the individual himself. Hence, the main function of education is to grant him the greatest possible opportunities for the growth of all his powers.

To monitor the educational and other developmental activities, the government of India established the Planning Commission. The prime responsibility of the Planning Commission is to formulate and to look after the implementation of successive Five-Year Plans.

Reports of Commission and Committees formed the basis for the development of education in the pre-independent era. In the post-Independence era, the constitution forms the edifice for the development of education. According to the Constitution as originally enacted, education was primarily a state subject. The Constitutional Amendment of 1976 included education in the Concurrent List.

Educational planning is done at two levels: Central and State. Both the Central and the State Governments have to work together in preparing and implementing the national plans for reconstruction of education. The Planning Commission of India's major responsibility was to formulate and monitor the implementation of the Five-Year Plans.

The Planning Commission has so far formulated twelve Five-Year Plans. These are: the first plan (1951-1956), the second plan (1956-1961), the third five year plan (1961-1966), the fourth plan (1969-1974), the fifth plan (1974-1979), the sixth plan (1980-1985), the seventh plan (1986-1990), the eighth plan (1992-1997), the ninth plan (1997-2002), the tenth plan (2002-2007), the eleventh plan (2007-2012) and the twelfth plan (2012-2017). Given below is a brief explanation of each of the above-mentioned plans:

- The developmental planning launched in 1951 through the First Five Year Plan (1951-56) envisaged that the programmes under various sectors of development would benefit all sections of the population.
- The second plan (1956-61) promised to ensure that the benefits of economic development accrue more and more to the relatively less privileged classes of society in order to reduce inequalities.

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- 'Equality of opportunity' and a reduction in disparities of income and wealth and the even distribution of economic power was the basic goal of Third Year (1961- 66) plan.
- The Fourth (1967-74) and the Fifth (1974-79) plans enumerated the rapid increase in the standard of living of the people through measures which also promoted equality and social justice.
- The Sixth Five year plan (1980-85) had been formulated taking into account the achievement and facilities in the past thirty years of planning. It emphasized the establishment and national development. It also aimed at the removal of illiteracy among the adult population.
- The Seventh plan (1986-91) oriented the education system towards meeting challenges of the 21st century.
- The major objective of the Eighth plan (1992-1997) gave an effort towards human development of which human resource was a necessary pre-requisite. The primary areas in this plan included full achievement of universalization of elementary education of "Education for All" by 2000. The Ninth plan (1997-2002) treated education as the most crucial investment in the human development. In the ninth plan, much stress was laid on primary education and provided skills training at the secondary level. This plan envisaged that the Panchayat Raj institutions would be empowered to serve as nucleus in programme implementation.
- The 10th plan (2002-2007) represented another step in the evaluation of development planning in India. This plan had been prepared against a backdrop of high expectations arising from some aspects of the recent performance.
- The 11th plan (2007-2012) placed highest priority on education as a central instrument for achieving rapid and inclusive growth. It presented a comprehensive strategy for strengthening the education sector covering all segments of the education pyramid.
- The main objective of the Twelfth plan (2012-2017) is expanding basic education, like elementary education, diversifying secondary education, improving the standards of college and university education, expanding technical and professional education programme for social and cultural progress and emphasizing expansion of primary education for girls.

2.2.2 Primary Education in India

The Indian government lays emphasis on primary education up to the age of fourteen years. 80% of all recognized schools at the elementary stage are government run or supported by it, making it the largest provider of education in the country. However, due to shortage of resources and lack of political will, this system suffers from massive gaps including high pupil teacher ratios, shortage of infrastructure and poor level of teacher training. Education has also been made free for children

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from 6 to 14 years of age or up to standard VIII under the Right of Children to Free and Compulsory Education Act, 2009. There have been several efforts made by the government to enhance quality education. The District Education Revitalization Programme (DERP) was launched in 1994 with an aim to universalize primary education in India by reforming and vitalizing the existing primary education system. 85% of the DERP was funded by the central government and the remaining 15% was funded by the states. The DERP, which had opened 160000 new schools including 84000 alternative education schools delivering approximately 3.5 million children, was also supported by the UNICEF and other international programmes. This primary education scheme has also shown a high Gross Enrollment Ratio of 93.95% for the last three years in some states. Significant improvement in staffing and enrollment of girls has also been made as a part of this scheme. The current scheme for universalization of 'Education for All is' the Sarva Shiksha Abhiyan (SSA) which is one of the largest education initiatives in the world. Enrollment has been enhanced, but the level of quality remains low.

2.2.3 Secondary Education in India

The National Policy on Education (NPE), 1986 has provided for environment awareness, science and technology and introduction of traditional elements such as Yoga into the Indian secondary school system. Secondary education covers children of 14-18 age-group which comes about 88.5 million children according to the Census 2001. However, enrollment figures show that only 31 million of these children were attending schools in 2001-2002, which means that two-third of the population remained out of school. A significant feature of India's secondary school system is the emphasis on inclusion of the disadvantaged sections of the society. Professionals from established institutes are often called to support in vocational training. Another feature of India's secondary school system is its emphasis on profession based vocational training to help students attain skills for finding a vocation of his/her choice. A significant new feature has been the extension of SSA to secondary education in the form of the Madhyamik Shiksha Abhiyan. A special Integrated Education for Disabled Children (IEDC) programme was started in 1974 with focus on primary education, but which was converted into inclusive education at Secondary State. Another notable special programme, the Kendriya Vidyalaya project was started for the employees of the Central Government of India, who are scattered throughout the country.

2.2.4 Higher Education in India

India's higher education system is the third largest in the world, after China and the United States. The main governing body at the tertiary level is the University Grants Commission (UGC), which enforces its standards, advises the government and helps co-ordinate between the Centre and the State. Accreditation for higher learning is overseen by 12 autonomous institutions established by the UGC. Some institutions in India, such as the Indian Institute of Technology (IIT) have been globally acclaimed for their standard of undergraduate education in engineering.

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The IITs enroll about 8000 students annually and the alumni have contributed to both the growth of the public and the private sectors of India. Some institutes of basic research like Indian Association for the Cultivation of Science (IACS), Indian Institute of Science (IIS), Tata Institute of Fundamental Research (TIFR) have been lauded for their standard of research in basic science. Three Indian Universities were named in the Times Higher Education List of the World's Top 200 universities: Indian Institutes of Technology, Indian Institutes of Management and Jawaharlal Nehru University in 2005 and 2006. Six Indian Institutes of Technology and the Birla Institute of Technology and Science were listed among the top 20 sciences and technology schools in Asia by news magazine, *Asiaweek*.

Growth of higher education

India made intensive efforts to improve access to higher education and it grew rapidly after Independence. The government supported higher education by setting up universities and colleges. It also took over the responsibility of running the institutions set up through private sector. There has been significant growth in the number of universities and colleges. After Independence, there was an increase from 30 (Universities) and 695(Colleges) during 1950-51 to 634 (Universities) and 33023 (Colleges) in 2011-12. There are five universities and 851 women's colleges of which 80 exclusively serve women students. The bulk of the higher education system depended on 131 affiliating universities, which contributed to about 89 percent of the total enrolment.

During the period 1950-51 and 2011-12, the total enrolment at higher educational level increased from 2 lakhs to 140 lakhs. At the beginning of the academic year 2011-12, the total number of students enrolled in the universities and colleges was 11.03 million. Of the total enrollment, 1.43 million (12.94%) were enrolled in University Departments and 9.60 (87.06%) in affiliated colleges and universities.

Growth of teaching staff in colleges and universities after Independence: The government took serious steps to establish a large number of primary, upper primary, higher secondary, colleges for general education, colleges for professional education and universities in the country. During the past 7 decades, the number of teaching staff increases from 23549 to 816966. The growth rates are calculated for the periods 1950-51 and 2010-11. As a result, the growth rate has gone up from 2.53 fold times in 1960-61 to 34.69 fold times by 2010-11.

Check Your Progress

1. Why is education important?
2. What is the structure of education in the state?
3. Why was the Planning Commission established in India?
4. Mention some of the features of India's secondary school system.
5. What led to the growth of higher education in India?

2.3 GROWTH IN STUDENT STRENGTH

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As per the data revealed through report of All India Survey of Higher Education, 2015-16, total enrolment in higher education has been estimated to be 34.6 million with 18.6 million boys and 16 million girls. Girls constitute 46.2% of the total enrolment.

The data given below will help you understand the extent of enrolment:

- Gross Enrolment Ratio (GER) in Higher education in India is 24.5%, which is calculated for 18-23 years of age group. GER for male population is 25.4% and for females, it is 23.5%. For Scheduled Castes, it is 19.9% and for Scheduled Tribes, it is 14.2% as compared to the national GER of 24.5%.
- Distance enrolment constitutes about 11.05% of the total enrolment in higher education, of which 46.3% are female students.
- About 79.3% of the students are enrolled in undergraduate level programme. 1, 26,451 students are enrolled in PhD. that is less than 0.4% of the total student enrolment.
- Maximum numbers of Students are enrolled in B.A. programme followed by B.Sc. and B.Com. programmes. Only 10 programmes out of approximately 180 cover 83% of the total students enrolled in higher education.
- At undergraduate level the highest number (40%) of students is enrolled in Arts/Humanities/Social Sciences courses followed by Science (16%), Engineering and Technology (15.6%) and Commerce (14.1%)
- At PhD level, maximum number of students is enrolled in Science stream followed by Engineering and Technology.
- On the other hand at Post Graduate level maximum students are enrolled in Social Science stream and Management comes at number two.
- Uttar Pradesh comes at number one with the highest student enrolment followed by Maharashtra and Tamil Nadu.
- Scheduled Casts students constitute 13.9% and Scheduled Tribes students 4.9% of the total enrolment. 33.75% students belong to Other Backward Classes. 4.7% students belong to Muslim Minority and 1.97% from other Minority Community.
- The total number of foreign students enrolled in higher education is 45,424.
- The foreign students come from 165 different countries from across the globe. The top 10 countries constitute 62% of the total foreign students enrolled.
- Highest share of foreign students come from the neighboring countries of which Nepal is 21% of the total, followed by Afghanistan (10%), Bhutan

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(6%). Nigeria and Sudan constitutes (5%) each.24, 171 students were awarded PhD level degree during 2015 with 14,887 males and 9,284 females.

- B.A. (22.42 Lakh) degree has been awarded to maximum number of students. B.Sc. (8.77 Lakh) is the second highest followed by B.Com. (8.59 Lakh).
- At Post Graduate level M.A. pass number of students is maximum followed by M.Sc. and M.B.A
- The highest number of students (22.4 lakh) has been graduated in Arts courses.
- At PhD level, maximum numbers of students out-turn is in Science stream followed by Social Science. On the other hand at PG level maximum students out-turn is observed in Social Science and Management stream comes at number two.
- The share of PhD student is highest in State Public University (33%) followed by Institute of National Importance (22%), Central University (14%) and Deemed University-Private (12%).
- Share of female students is lowest in Institution of National Importance followed by State Private Open Universities, and Deemed University

2.3.1 Student Enrolment at Various Levels

Total student enrolment has been classified in 8 levels: PhD, MPhil, Post Graduate, Under Graduate, PG Diploma, Diploma, Certificate and Integrated.

The highest number of students are enrolled at Under Graduate level across India. Similar situation could be observed in States/UTs. Out of the total enrolment of 3, 45, 84,781 students, a vast majority of 2, 74, 20,450 students are enrolled in Under Graduate that is a sweeping 79.3%. On the other hand, second to Under Graduate, 11.3% students are enrolled in Post-Graduation which is approximately 39.2 lakh students. There are 5,753 students enrolled in Integrated Ph.D. in addition to 1, 26,451 students enrolled at Ph.D. Level. The student enrolment from UG going higher to PG is thus decreasing steeply. There is a small share of 7.4% students enrolled at Diploma level in India that amounts to around 25.5 lakh students and out of this majority of students are enrolled in Teacher Training, Nursing and Technical streams. However, a small share of 1.4 lakh and 2.3 lakh students are enrolled each at Certificate and PG Diploma levels respectively, constituting approx. 0.4% and 0.7% of the total share at each level. Ph.D., M.Phil. and Integrated levels also have less than 0.5% student enrolment at each level.

In terms of state-share of enrolment, Maharashtra tops in the enrolment of students in Universities (including constituent units) with 8, 80,202. This is followed by Tamil Nadu with 7, 63,400 students and Delhi with 7, 37,697 students.

Check Your Progress

6. What is the total enrolment in higher education in 2015-16?
7. What is the share of student enrolment at various levels?

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2.4 HETEROGENEITY OF STUDENT POPULATION

One of the trends common in higher education around the world is its mass character. More and more freshmen with different social, economic and academic backgrounds enter universities every year. In turn, universities are increasingly competing with each other for the most talented students. Which universities attract the strongest student body? Which faculties attract the weakest students? To which extent has the system of higher education become non-homogeneous? And finally, how do universities differ in the quality and heterogeneity?

Heterogeneous grouping is a type of distribution of students among various classrooms of a certain grade within a school. In this method, children of approximately the same age are placed in different classrooms in order to create a relatively even distribution of students of different abilities as well as different educational and emotional needs. Rather than keeping all together in one classroom, gifted children will be scattered throughout the various grade level classrooms.

Homogeneous grouping is the placement of students of similar abilities into one classroom. Although there may be a range of abilities in one classroom, it is more limited than the range found in the heterogeneous classroom. For instance, all gifted children within the same grade level will be in the same classroom.

2.4.1 Pros and Cons of Heterogeneity

There are many advantages and disadvantages of heterogeneous classrooms. These are as follows:

- When students in gifted or special education programs go to special instruction classes common in homogeneous classes. Students may feel stigmatized socially if they have to go to a "special" class every day and could find themselves.
- Heterogeneous classrooms present different challenges for teachers. They have to try to be sure everyone in a heterogeneous classroom is being challenged and learning the material.
- Gifted students in heterogeneous classes may not fare as well as their peers. They may feel pressure to be "second teachers," that is, help students who are not grasping the material as readily. These gifted students may also grow impatient and bored at the pace of a traditional classroom, which can lead to frustration.

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- Since the majority of students in a classroom are average students, classrooms tend to be geared toward their learning needs. That means, for example, that even if a gifted child starts kindergarten not knowing how to read, a full week spent on only one letter of the alphabet is unnecessary. The lessons can become frustrating.
- Gifted children need plenty of intellectual stimulation, and if they don't get it from their teachers, they will often provide it for themselves.
- But heterogeneous classrooms may help students who have social anxiety or learning disabilities to learn much-needed social skills. Kids who take "special education" programs may have some problems keeping up in heterogeneous environments, but that should be weighed against the possible stigma they may face if they are grouped in a homogeneous classroom.
- The needs of individual students may not be fully met in a heterogeneous classroom environment, but for average students, it can be helpful to be exposed to students with different learning skills and styles. It's up to parents and educators to decide which type of learning structure works best for each student.

Heterogeneity has been rather extensively studied as a phenomenon in the sphere of education. At least three possible viewpoints on the problem of heterogeneity can be derived:

(i) Diversification of higher education institutions

(ii) Selectivity of higher education institutions, and

(iii) Heterogeneity of the student population.

Diversification of higher education institutions is considered as a response to the diversity of needs and requirements of society as a whole (Reichert, 2009). The proponents of this view believe that the traditional institutions of higher education, such as classic universities, are no longer useful to meet the demands and interests of an increasingly heterogeneous student population, or to meet the requirements of a rapidly changing economy (Guri-Rosenblit, Sebkova, 2006). Accordingly, the diversification of the educational system is the natural result of higher education becoming truly massified (Schofer, Meyer, 2005). Critics of educational diversification argue that it does not satisfy the requirements of the entire heterogeneous population, especially of low-income students (Posselt et al., 2012). The explanation is that diversity in higher education can turn into a polarized system with the competitive institutions on one end, and the rest of the institutions with low educational standards on the other end. So, while providing access to higher education for various groups of students, diversification of higher education possibly creates an additional hierarchy amongst institutions. This hierarchy is based on the prestige of different universities, and as a result it preserves an inequality that already exists in society today (Carnevale, Strohl, 2010).

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The other phenomenon that reflects the heterogeneity problem is the selectivity of higher education institutions. Selectivity can be defined as a set of requirements aimed to separate entrants who can study at the university from those who cannot. In some countries educational systems can be characterized by the low selectivity of universities, for example, in France (except of Grandes Écoles). But despite the low entrance standards and quite heterogeneous set of students, selection of talented students and attrition of incapable students occurs, mainly during the learning process (Calmand et al., 2009). If the university adheres to a rigid selection system, it will select the best candidates with the highest scores and the deepest academic backgrounds. At the same time, the strict selectivity and the prestige of some universities influences graduates' future opportunities, including income and professional status (Brewer et al., 1999; Datcher, Garman, 2005). Nowadays, in some countries (e.g., in the USA) universities and colleges have to follow some requirements in order to contribute to the diversity of the student body. So, even prestigious colleges regularly use racial or legacy preferences, as well as preferences for talented athletes, in selecting their students (Pastine, 2012). Though high test scores are the most significant precondition for enrolment in the most selective universities, they do not guarantee a place in those institutions, and even the contingent of highly selective institutions can often appear academically non-uniform (Hurwitz, 2011).

Another possible viewpoint on the problem of heterogeneity is to consider the heterogeneity of the student body in terms of differences in the characteristics of students. A number of studies have demonstrated that differences in family background have some effects on students' university choice and their educational achievements (McEwan, 2003; Woessmann, 2004; Brian, 2010). Additionally, differences in peer socio-economic status (SES) and their impact on student learning have been widely discussed (Evans et al., 1992; Robertson, Symons, 2003; van Ewijk, 2010). A range of studies consider ethnicity and race as another possible source of heterogeneity, influencing student academic achievements (Baker et al., 2000; Braswell et al., 2001; Altschul et al., 2006). Difference in academic ability is also a factor, setting students apart and affecting their performance. A number of researchers consider academic heterogeneity in terms of so-called peer-effects. They measure the effect that the average performance of one group of students has on another group of students (Sackerdote, 2001; Zimmerman, 2004; De Paola, Scoppa, 2010; Andrushak et al., 2012; Bielinska-Kwapisz, Brown, 2012).

Check Your Progress

8. What is the difference between heterogeneous and homogeneous groupings?
9. Why is there no consensus among scholars on the issue of diversification of higher education institutions?

2.5 QUANTITY VS. QUALITY ISSUES

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Over the past three decades, prevailing academic concerns for educational development have been extended to incorporate both quantity and quality of education (Johnson & Stafford, 1973; Behrman & Birdsall, 1983; Maxwell, 1994; Harmon & Walker, 2000). It is because educational development has a widely observed significant association with quantity and quality. Thus, educational development in a nation cannot be clearly explained without considering the transition of both quantitative growth and qualitative improvement. However, simultaneous understanding of both quantity and quality of education is not a simple task. The reason is that different variables representing quantitative and qualitative aspects of education have heterogeneous implications and are at times exclusive to each other. In addition, various variables such as domestic and international economy, politics and culture, have an influence on the transition of both quantity and quality of education.

Educational development has long been one of the highest priorities among nations. Indeed, a well-balanced educational development can never be attained with narrow-minded perspectives inclining to either quantity or quality. Nonetheless, concerns in education vary greatly among nations. For example, most developing countries focus on quantitative aspects such as general education or expansion of educational opportunity, because these countries must attend to overriding issues such as establishment of infrastructure for education, expansion of educational opportunities, and enlightenment of education participants. Consequently, their major emphasis of research into educational development centers on the quantity of education. In comparison, the major emphasis of advanced countries is placed on the question of quality in education. They are mostly interested in qualitative aspects such as excellence in education or quality assurance. In other words, advanced countries prioritize the purpose of education, suitability of curriculum, growth of those who are educated, satisfaction of education users, and so forth. Unfortunately, such difference in the views between developing countries and advanced countries leads to divided interests in research fields, which means that researchers from advanced countries focus more on the quality of education, whereas researchers from developing countries mainly discuss the quantitative aspects of education.

At the same time, this phenomenon has a highly negative effect on educational development. Despite the challenges, our understanding of the relationship between quantity and quality of education is quite limited, because there have been so far few empirical and longitudinal studies of how quantity and quality of education are closely related.

2.5.1 Quantity and Quality Indicators of Education

Quantity and quality of education are the core values for equality of educational opportunity. Equality of educational opportunity is the recognition of the right to

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education as a human right or as the birthright of every individual irrespective of religion, race, class, or socio-economic status. Thus, government investments in the quantity and quality of education play the dominant role in realizing the equality of educational opportunity. Historically, government investments in education have contributed to the growth in education. Yet, the simultaneous pursuit of quantity and quality of education is not an easy task. Industrialization and modernization have brought rapid changes to education.

Educational changes can be analyzed through understanding quantity and quality indicators, because these provide information on the human and financial resources invested in education, on how education and learning systems operate and evolve, and on the returns to educational investments (Organization for Economic Co-operation and Development, 2008, p. 19).

Quantity

Quantity indicators seek to gauge the investment in the educational sector rather than to find educational results. Most of the indicators are closely related to the number of participants in education or institutions for learning, and the extent of the access to learning opportunities. The proxy for investment is the entry and enrolment rates in elementary, secondary, and postsecondary education. These indicators profile educational growth and developments. In general, each indicator is interpreted within the policy context. As much as education has expanded over recent decades, inequalities in educational outcomes as well as in educational and social mobility have persisted in many countries (Organization for Economic Co-operation and Development, 2007). According to an annual report published by the Organization for Economic Co-operation and Development (OECD), quantity of education strongly influences individual life chances. For example, education is a major contributor to the inheritance of economic advantages across generations and to social stratification, and by the same token an accessible policy instrument to increase inter-generational income mobility (Organization for Economic Co-operation and Development, 2006). Conversely, the long-term social and financial costs of educational inequalities can be high, as those without the competencies to participate socially and economically may not realize their potential and are likely to generate higher costs for health, income support, child welfare and security (Organization for Economic Cooperation and Development, 2007, p. 4). Therefore, the provision of appropriate investments and equal opportunities for participants is an important criterion for judging the success of educational policy.

Quality

Quality, when applied to teaching and learning in schools, is an elusive concept, because the criteria used to judge it are influenced by when, where, for whom and by whom judgment is made, and also because of the complexity of teaching and learning (Baird, 1988, p. 141). One would like to highlight the fact that the definition of quality itself has not remained constant and has been changing over the years in response to social, cultural, economic and political factors (Naik, 1979, p. 182).

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It is not easy to define what quality in education really means and how it can be measured in different areas at the same time, or at different times in the same area. However, some literatures may help to clarify the definition. In terms of inputs and outcomes, educational studies have attempted to define quality and showed quite common results. The quality of education is closely related to external or internal quality assurance. In terms of inputs, one judges quality by measures such as resources, programs, and cost. These measures have been generally used to analyze educational development. The proxy for educational inputs is drawn from these measures. For instance, pupil–teacher ratio, class size, general fund revenues per pupil, fund expenditures per pupil, teachers' salaries, curricula, and textbooks, etc. Also, the quality of education is defined by the outcomes. The most commonly accepted educational outcome now appears to be students' academic achievement. For instance, standard test scores such as those used by Programme for International Student Assessment (PISA) are one of the representative indicators. It may be admitted that the indicators of quality in education are closely related to resources, programs, and investments.

Check Your Progress

10. Why do most developing countries focus on quantitative aspect of education?
11. What do quantity indicators seek to perform?
12. Why is quality an elusive concept?

2.6 ANSWERS TO CHECK YOUR PROGRESS QUESTIONS

1. Education is a dynamic process that starts from birth. It is a mirror of the society and base of the socio-economic development. It transforms human beings from ignorance to enlightenment; from under development to faster economic and social development. It is an important factor that drives both social changes and economic growth. The development of a strong nation requires that the human resources of the country are endowed with higher level of education, skill and specialization.
2. The structure of education in the state is based on the national level pattern with 12 Years of schooling (10+2+3). It consists of eight years of elementary education, that is, five years of primary and three years of middle school education for the age groups of 6-11 and 11-14 years, respectively. This is followed by secondary and higher secondary education of two years each. The higher secondary school certificate enables pupils to pursue studies either in universities or in colleges for higher education in general academic streams and in technical and professional courses.

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3. To monitor the educational and other developmental activities, the government of India established the Planning Commission. The prime responsibility of the Planning Commission is to formulate and to look after the implementation of successive Five-Year Plans.
4. A significant feature of India's secondary school system is the emphasis on inclusion of the disadvantaged sections of the society. Professionals from established institutes are often called to support in vocational training. Another feature of India's secondary school system is its emphasis on profession based vocational training to help students attain skills for finding a vocation of his/her choice. A significant new feature has been the extension of SSA to secondary education in the form of the Madhyamik Shiksha Abhiyan.
5. India made intensive efforts to improve access to higher education and it grew rapidly after Independence. The government supported higher education by setting up universities and colleges. It also took over the responsibility of running the institutions set up through private sector. There has been significant growth in the number of universities and colleges. After Independence, there was an increase from 30 (Universities) and 695(Colleges) during 1950-51 to 634 (Universities) and 33023 (Colleges) in 2011-12. There are five universities and 851 women's colleges of which 80 exclusively serve women students. The bulk of the higher education system depended on 131 affiliating universities, which contributed to about 89 percent of the total enrolment.
6. As per the data revealed through report of All India Survey of Higher Education, 2015-16, total enrolment in higher education has been estimated to be 34.6 million with 18.6 million boys and 16 million girls. Girls constitute 46.2% of the total enrolment.
7. The highest number of students are enrolled at Under Graduate level across India. Similar situation could be observed in States/UTs. Out of the total enrolment of 3, 45, 84,781 students, a vast majority of 2, 74, 20,450 students are enrolled in Under Graduate that is a sweeping 79.3%. On the other hand, second to Under Graduate, 11.3% students are enrolled in Post-Graduation which is approximately 39.2 lakh students. There are 5,753 students enrolled in Integrated Ph.D. in addition to 1, 26,451 students enrolled at Ph.D. Level. The student enrolment from UG going higher to PG is thus decreasing steeply.

   There is a small share of 7.4% students enrolled at Diploma level in India that amounts to around 25.5 lakh students and out of this majority of students are enrolled in Teacher Training, Nursing and Technical streams. However, a small share of 1.4 lakh and 2.3 lakh students are enrolled each at Certificate and PG Diploma levels respectively, constituting approx. 0.4% and 0.7%

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of the total share at each level. Ph.D., M.Phil and Integrated levels also have less than 0.5% student enrolment at each level.

8. Heterogeneous grouping is a type of distribution of students among various classrooms of a certain grade within a school. In this method, children of approximately the same age are placed in different classrooms in order to create a relatively even distribution of students of different abilities as well as different educational and emotional needs. Rather than keeping all together in one classroom, gifted children will be scattered throughout the various grade level classrooms.

   Homogeneous grouping is the placement of students of similar abilities into one classroom. Although there may be a range of abilities in one classroom, it is more limited than the range found in the heterogeneous classroom. For instance, all gifted children within the same grade level will be in the same classroom.

9. Diversification of higher education institutions is considered as a response to the diversity of needs and requirements of society as a whole. The proponents of this view believe that the traditional institutions of higher education, such as classic universities, are no longer useful to meet the demands and interests of an increasingly heterogeneous student population, or to meet the requirements of a rapidly changing economy. Accordingly, the diversification of the educational system is the natural result of higher education becoming truly massified.

   Critics of educational diversification argue that it does not satisfy the requirements of the entire heterogeneous population, especially of low-income students. The explanation is that diversity in higher education can turn into a polarized system with the competitive institutions on one end, and the rest of the institutions with low educational standards on the other end. So, while providing access to higher education for various groups of students, diversification of higher education possibly creates an additional hierarchy amongst institutions.

10. Most developing countries focus on quantitative aspects such as general education or expansion of educational opportunity, because these countries must attend to overriding issues such as establishment of infrastructure for education, expansion of educational opportunities, and enlightenment of education participants. Consequently, their major emphasis of research into educational development centers on the quantity of education. In comparison, the major emphasis of advanced countries is placed on the question of quality in education.

11. Quantity indicators seek to gauge the investment in the educational sector rather than to find educational results. Most of the indicators are closely related to the number of participants in education or institutions for learning,

and the extent of the access to learning opportunities. The proxy for investment is the entry and enrolment rates in elementary, secondary, and postsecondary education. These indicators profile educational growth and developments. In general, each indicator is interpreted within the policy context.

12. Quality, when applied to teaching and learning in schools, is an elusive concept, because the criteria used to judge it are influenced by when, where, for whom and by whom judgment is made, and also because of the complexity of teaching and learning. One would like to highlight the fact that the definition of quality itself has not remained constant and has been changing over the years in response to social, cultural, economic and political factors. It is not easy to define what quality in education really means and how it can be measured in different areas at the same time, or at different times in the same area.

    However, some literatures may help to clarify the definition. In terms of inputs and outcomes, educational studies have attempted to define quality and showed quite common results. The quality of education is closely related to external or internal quality assurance. In terms of inputs, one judges quality by measures such as resources, programs, and cost. These measures have been generally used to analyze educational development.

2.7 SUMMARY

- Education is a dynamic process that starts from birth. It is a mirror of the society and base of the socio-economic development. It transforms human beings from ignorance to enlightenment; from under development to faster economic and social development.
- The development of a nation depends upon its mode of education. Growth of a young nation like India depends upon its educational approach. It was felt that society would have to resort to modernization to educate itself.
- Educational planning is done at two levels: Central and State. Both the Central and the State Governments have to work together in preparing and implementing the national plans for reconstruction of education.
- The District Education Revitalization Programme (DERP) was launched in 1994 with an aim to universalize primary education in India by reforming and vitalizing the existing primary education system.
- The National Policy on Education (NPE), 1986 has provided for environment awareness, science and technology and introduction of traditional elements such as Yoga into the Indian secondary school system.

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- Some institutions in India, such as the Indian Institute of Technology (IIT) have been globally acclaimed for their standard of undergraduate education in engineering.
- India made intensive efforts to improve access to higher education and it grew rapidly after Independence. The government supported higher education by setting up universities and colleges.
- The government took serious steps to establish a large number of primary, upper primary, higher secondary, colleges for general education, colleges for professional education and universities in the country.
- As per the data revealed through report of All India Survey of Higher Education, 2015-16, total enrolment in higher education has been estimated to be 34.6 million with 18.6 million boys and 16 million girls.
- Although there may be a range of abilities in one classroom, it is more limited than the range found in the heterogeneous classroom. For instance, all gifted children within the same grade level will be in the same classroom.
- Heterogeneous classrooms present different challenges for teachers. They have to try to be sure everyone in a heterogeneous classroom is being challenged and learning the material.
- Critics of educational diversification argue that it does not satisfy the requirements of the entire heterogeneous population, especially of low-income students.
- Another possible viewpoint on the problem of heterogeneity is to consider the heterogeneity of the student body in terms of differences in the characteristics of students.
- Educational development has long been one of the highest priorities among nations. Indeed, a well-balanced educational development can never be attained with narrow-minded perspectives inclining to either quantity or quality.
- Despite the challenges, our understanding of the relationship between quantity and quality of education is quite limited, because there have been so far few empirical and longitudinal studies of how quantity and quality of education are closely related.
- Quality, when applied to teaching and learning in schools, is an elusive concept, because the criteria used to judge it are influenced by when, where, for whom and by whom judgment is made, and also because of the complexity of teaching and learning
- Standard test scores such as those used by Programme for International Student Assessment (PISA) are one of the representative indicators. It may be admitted that the indicators of quality in education are closely related to resources, programs, and investments.

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2.8 KEY WORDS

- **Tata Institute of Fundamental Research (TIFR):** This is a public research institution located in Mumbai that is dedicated to basic research in mathematics and the sciences.
- **Right of Children to Free and Compulsory Education Act:** This is an Act of the Parliament of India enacted on 4 August 2009, which describes the modalities of the importance of free and compulsory education for children between the ages of 6 to 14 years in India under Article 21A of the Indian Constitution.
- **Equal Opportunity:** The term refers to a state of fairness in which job applicants are treated similarly, unhampered by artificial barriers or prejudices or preferences, except when particular distinctions can be explicitly justified.
- **Student enrolment:** It is the process in which students enroll at a school or college or university.
- **Grandes Écoles:** The Grandes Écoles of France are higher education establishments that are outside the main framework of the French public university system.
- **Diversification of education:** The principle of the education system structuring, providing the possibility of variability of educational services, educational programs, types of educational institutions, etc.

2.9 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. How is educational planning done in India?
2. What is the main objective of the Twelfth Five-Year Plan?
3. Write a short note on the growth of student strength in India's education.
4. What are the advantages and disadvantages of heterogeneous classrooms?
5. Mention the role of quantity and quality indicators in the education sector.

Long-Answer Questions

1. Discuss the growth in institutions at various levels of education in India.
2. Analyze critically the prevailing Gross Enrolment Ratio (GER) in Higher Education in India.

3. Discuss why the Indian government lays emphasis on primary education.
4. "The quality of education is defined by the outcomes." Justify this statement.

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2.10 FURTHER READINGS

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UNIT 3 AUTONOMY AND ACCOUNTABILITY

Structure

3.0 INTRODUCTION

In the last few decades, India witnessed an unprecedented growth in higher education wherein both private and public universities along with numerous autonomous institutions contributed immensely to accelerate it as mass education for students. While the Universities funded by the governments at both the State and Centre are governed through University Grants Commission (UGC) Act, 1956 which brought about various guidelines for awarding degrees to students, private universities are mostly supported by various bodies and societies with due approval from the UGC. After Independence, various commissions were formed to look into the function of higher educations.

The National Policy on Education has also stressed the need for incorporating changes to make higher education compatible and dynamic as per the requirements of changes that have been taking places. In order to stave off various ills inflicting the education system, great emphasis was given on autonomy and accountability in the functioning of colleges which offer degrees to students at various stages. After all, a college declared autonomous by the affiliating university is fully accountable for the content and quality of education it imparts. However, there are many issues such as affiliation system, freedom of colleges or institutions to achieve academic excellence and financial autonomy which need to be looked in detail to ensure that they run properly. Autonomy functions as an instrument of transformational leadership. Then there are issues of leadership in education management and change management. It is important to understand how change happens and affects others.

While analysing those issues which are related to autonomy and accountability, this unit discusses in detail the role of leadership in education and change management.

3.1 OBJECTIVES

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After going through this unit, you will be able to:

- Explain issues relating to autonomy and accountability
- Understand the sphere of institution's autonomy and transparency
- Analyse accreditation of individual, departmental and institutional levels
- Learn about autonomy as an instrument of transformational leadership
- Discuss factors influencing transformational leadership
- Recognise leadership in education management and change management

3.2 ISSUES RELATING TO AUTONOMY, ACCOUNTABILITY AND ACCREDITATION

Looking back, during the last six decades, the Indian higher education system had undergone many important changes; the most significant being its unprecedented growth and its consequent transformation from an elite system to a mass system. The sphere of higher education has been marked by a phenomenal expansion during the five decades after Independence. Today, higher education in India is imparted through numerous Universities and equivalent institutions. The higher education system in India includes both private and public universities. Public universities are supported by the Government of India and the state governments, while private universities are mostly supported by various bodies and societies. Universities in India are recognized by the University Grants Commission (UGC), which draws its power from the University Grants Commission Act, 1956. In addition, Professional Councils are established, controlling different aspects of accreditation and coordination. The types of universities controlled by the UGC include Central universities, State universities, Deemed universities and Private universities. In addition to these universities, other institutions (not called universities by name) are granted the permission to autonomously award degrees. They usually fall under the administrative control of the Department of Higher Education. In official documents they are called "autonomous bodies", "university-level institutions", or even simply "other central institutions".

The different commissions and committees that have examined the Indian higher education system, after independence, have identified the maladies that affect it and have also suggested remedies. However, we have failed to follow up on the recommendations. The maladies identified by the Kothari Commission over three decades ago still exist. The latest example of our indifferent approach

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is the half-hearted manner in which the Programme of Action, 1992 is being implemented.

The Kothari Commission emphasized that the proper sphere of institution's autonomy is in three fields;

(1) Selection of students

(2) Appointment and promotion of teachers

(3) Determination of courses of study, methods of teaching and selection of areas and problems of research.

The National Policy on Education visualized that higher education should become dynamic as never before. One of the main features of the programmes and strategies to impart the necessary dynamism to the higher education system consist of the Development of Autonomous Colleges and Departments. The system of affiliated colleges does not provide autonomy to deserving colleges to frame curricula, courses of studies, or their own system of evaluation.

Let us explain in detail those issues that impact autonomy and accountability in Higher Education in India. These are as follows:

1. **The Affiliation System and Autonomous Colleges**: Many of the ills of Indian higher education can be attributed to the system of affiliation. Most conventional Indian universities are teaching-cum-affiliating; and some of the larger universities have more than 600 colleges affiliated to them. The colleges have common syllabi and the students appear for a common examination usually conducted at the end of the year. For many universities, the conduct of examination has become the most important administrative function. The affiliating system was devised to regulate and standardize the quality of education. But with the tremendous increase in the number of institutions the system has become counter-productive. Because of it some sub-standard colleges serenely ride piggyback on the reputation of the mother institution. The affiliating system is a drag on the better institutions that would otherwise regularly revise and updates their curricula and introduces innovative programmes. In order to allow the growth of colleges that had the desire to move ahead the concept of autonomous colleges was introduced about a decade back. It allows the college to have autonomy as regards academic matter. Management, teachers and students all look upon this innovation with suspicion. There is clearly a need for dialogue amongst all concerned so that a conductive environment can be created. Many educationists feel that the programme of granting to the colleges needs to be vigorously pursued, even to the extent of making every colleges autonomous and responsible for itself.

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2. **Autonomy:** A Myth or a Reality

   Autonomy of institutions broadly emphasizes

   (a) Freedom to function to achieve academic excellence and

   (b) Freedom to administer the institution through its own rules and regulations. Such autonomy has now become a veritable myth on account of

   (i) Too much linkage with political powers of the state, and

   (ii) Financial constraints faced by the institutions.

   Many states have come to apply more control on autonomous functioning of universities & colleges by various means and methods. Financial aid has become most powerful instruments in the hands of state government to curtail the autonomy of the University and Colleges.

3. **UGC Scheme of Autonomous Colleges**: The UGC has a scheme under which a college declared autonomous by is affiliating university is fully accountable for the content and quality of education it imparts. Such a college is also responsible for setting its own examination paper and for the conduct of examinations. The college evaluates the students for the award of degrees which will be accepted by the parent university. An autonomous college is provided financial assistance per annum depending upon the course and the level of education imparted by it.

4. **Autonomy and Accountability**: Along with autonomy, another important element is accountability, which is the kingpin of democratic University administration. It is not only regulatory and punitive in its content. It has a positive and promotional goal. That is, adequate administrative performance as per the objectives and structure of a University is to be ensured. Autonomy and Accountability are really two sides of the same coin. Any complex task of a continuing nature which requires the participation of different people at different places, requires a management system which can determine and assign responsibilities, laying down who will do what, where, when, etc., and also the freedom to take the initiative without interference from outsides who are not accountable to the management for the achievement of organizational objectives.

   Large industrial or commercial undertakings, multinationals and other enterprises, in respect of which every step or situation cannot be predicted, allow their regional boards and managers considerable freedom of action. Generally the degree of interference from the higher authorities in the functioning of a lower formation is determined partly by the nature of the task and partly also by the latter's record of performance. Accountability has both a broader and narrower connotation. In a broad sense, it may refer to the returns to society for the investment made in maintaining Universities. The returns are measured as costs/benefits or increase in

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efficiency of manpower engaged in different vocations or professions. There are also the overall benefits to society, which are diffused. In a narrow sense, it refers to answerability to the superior authority for implementation and achievement. In short, accountability demands carrying out administrative operation with economy, efficiency and effectiveness.

Financial accountability of a College is important because in the public view, the taxpayer has a prerogative to demand proof of effective programme or performance of excellence of the College product or its effect on society. It underlines effectiveness of all financial expenditures on a College. At the same time, in the name of accountability, performance should not become the prisoner of non-decision.

In the context of College finances, accountability may be distinguished with reference to

(1) Procedures,
(2) End result physical product
(3) Contribution to knowledge and societal use and
(4) End-result educational product.

For procedural accountability, the Grant-in-aid, University Act, Statutes, and rules of purchase prescribe, the relevant authority for giving sanctions and the legal aspect become an answer adjunct to it. In the case of end-result product, the final outcome by way of physical assets created by University expenditure funded by grants or donations is the measure.

5. **Minimal Requirements of Autonomy and Accountability**: It is necessary to identify the prerequisites of functional autonomy without which one cannot expect the colleges to perform the tasks assigned to them. It is also necessary to establish a broad consensus on what should be regarded as the minimal requirement of accountability vis-à-vis the college system.

   To mention only the routine functions, ignoring the inescapable socio-cultural and economic responsibilities, it is self-evident that every college has to ensure that:

   - It will admit students as per a pre-determined schedule, only on the basis of objective, transparent and credible criteria;
   - It will lay down and, from time to time, update syllabi and curricula, keeping in view the general levels of competence of students at the entry point and the conceptual comprehension, methodological skills and factual information which they must acquire to obtain employment commensurate with their degrees;
   - Class and course work proceeds according to a given time table;
   - Appraisal of the levels of achievements of students vis-à-vis the prerequisites laid down in the syllabi, etc. would be undertaken well in

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time through processes which would demonstrably preclude favouritism and corruption.

- The grading awarded to examinees would be such as to command credibility among monitoring and funding agencies, other institutions and employers;
- An environment for learning would be created which would ensure that the general body of students would become actively involved with the pursuit of knowledge, so that there would be very little 'wastage and stagnation';
- The composition of the staff and of the student body and the general environment would discourage inbreeding the parochialism, and ensure that personnel at all levels felt accountable for the performance of their duties in a responsible position;
- There is adherence to reasonable norms in the matter of optimal utilization of staff, equipment and infrastructure, professional encouragement, financial discipline and grievance redressal.

Complete autonomy to colleges raises the question of financing of college education. Today except for the fees paid by the students and a small amount of endowment fund and other sources of receipts of the colleges, the state and central governments and local authorities meet the overwhelming proportion of the current expenditure. There is no reason why all these institutions, irrespective of their strength and quality should be supported from public funds. This, of course, does not mean that the state should provide no funds for higher education. Indeed, the better way for providing funds for higher education is to make widespread provision for scholar ships and loans to students submitted to different educational institutions. The institutions should charge full fees and the student can choose the institution of his preference. But, in the first place, such sharp and sudden change can create great dislocation and confusion. Moreover, the government may like to keep an eye on the way the institutions are likely to raise and use their resources. For this purpose, it is advantageous if the government meets a part of the costs.

6. **Financial Autonomy and Accountability:** Efficient functioning of an institution is hedged, inter alia, on the side by financial inadequacy coupled with lack of autonomy and on other side by centralization of financial and administrative powers. While the former emanates from the funding agency, mostly the Government, State or Central the latter is anchored to the top administrative layer of the institution. The one is by design and the other is by bureaucratic choice in an otherwise free academic environment. Consequently, when an institution has an ever-expanding role, the pervasiveness and impact of fund shortage and financial centralization are both getting more extensive and intensive on its performance or

accomplishment. The crucial test of efficiency and effectiveness of institution's administration lies in the fulfilment of the stipulated objectives of higher education. Its policy must effectuate into successful programmes and consistently seek to strive for them, failing which, ends up in an administrative abortion.

College administration functions may broadly be classified as:

(1) Service function

(2) Protective function

(3) Primitive function

(4) Preservative function.

Service function is basic and it is to sub-serve the requirement of students, teaching and research. To this is to be added to welfare aspect also. The protective functions refer to safeguarding the rights and privileges of all members of the College community. Recruitment, admission, service matters, health delivery system, obligatory responses and the like are included. The primitive function is directed at realizing self-realization for all members facilitating enjoyment of academic freedom and cultures. The Preservative function covers its role as a trustee of the resources and contributions that are to be preserved for passing on to the future generations. Through these functions, it may be said that a college strives to facilitate the creation of academic environment for the university community in which individuals may achieve excellence in the pursuit of knowledge and their personality development.

The financial autonomy refers to the governance of College finances by its own Management. College should function without any outside intervention or pressures and should not involve itself in any power game from individuals or groups. Together with academic freedom, financial autonomy is an essential requirement of any progressive University. Keeping up to the financial commitments at the Government level and providing financial flexibility in matters of promotion on merit, research needs, student programmes are necessary.

Changes are called for above the College level in terms of decentralization of financial powers among the functionaries like the Secretary, Director, Joint Director in the education department. Similarly, decentralization of financial powers and enhancement of such powers where they exist now is imperative at the U.G.C. level. Any reform, which has figured in recent discussion, is of no use if it is not accompanied by adequate delegation of financial powers. At the College level, decentralization of financial powers both horizontally and vertically is necessary.

The basic tests in deciding the levels and adequacy should be:

(1) Whether it facilitates quick decision making and eliminates delays?

(2) Whether the felt needs of the various segments are properly comprehended?

(3) Whether it involves greater co-operation than resistance?

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(4) What impact it has on the end-result?

(5) How soon can the end-result be achieved?

(6) Will it meet the standards of expertise where needed?

(7) Is there the requisite administrative support?

(8) If adequate administrative support is missing, can it be provided by redeployment of administrative staff?

(9) What type of maintenance and reporting system is to be developed?

The concept of autonomy or autonomous colleges or accountability thereof can be systematically dovetailed in the aforesaid issues. It seems desirable to reiterate that the whole exercise will serve no purpose if Union Government and State Governments keep enjoying their control through its departments. Some of the aforesaid key issues in the process of granting autonomy and ensuring accountability have been discussed in this paper. These issues are to be resolved in progressive manner, with definite and meaningful action plan for the same.

Autonomy helps institutionalize quality and accountability, thereby encouraging institutions to incorporate unique pedagogical developments and practices into the curriculum. Management education is meant to be contemporary in nature and thus dynamic. Frequent changes are required in pedagogy, curriculum and other aspects. An autonomous status expedites these operations and thus enthuses constant fluidity in the pattern and curriculum, apart from accelerating and improving evaluation. Autonomy is granted to institutes based on the parameters of excellence in academic performances, capability of self-governance and enhancement in the quality of education, and it can be seen as a great opportunity to meet the emerging and evolving needs, in sync with the industry.

While expanding new horizons for higher education and strengthening the quality and relevance, autonomy can be considered a possible solution to enhance the quality of education and incorporate methods of skilling the students, thus contributing to creating a knowledge-based economy and paving the way to gear up the young workforce for Industry Business schools in India, whether privately owned or state funded, have proved their credibility by giving the world some of the best corporate leaders and entrepreneurs. It is essential that Indian institutes are given the freedom to work with a greater agility in realizing the larger goals of the education space in the country.

For students, it means they will have a contemporary curriculum in sync with the industry needs. A lot has been spoken about automation eating into the job market, making a large percentage of the human resource redundant. A World Bank 2016 research noted that automation threatens 69% jobs in India. It is at such times that autonomous status enables the institutions to swiftly change gears and turn in the direction that is required by the industry in the times to come. India has the potential, and all that is required such as talent, ability, good institutes with sophisticated infrastructure, but they need to be strengthened to be given more

impetus. Importance of innovation is being highlighted by industry experts, reason being that innovation is the way to sustainable development. Thus, proper channeling of efforts and government impetus for autonomy can propel the global ranking of Indian institutions and push India higher on the world charts for education. By bringing this into effect, there are high chances of reducing the brain drain, turning it into a brain gain.

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Check Your Progress

1. What is the role of the University Grants Commission (UGC) in India?
2. Why has affiliating system become counter-productive in India?
3. Why does a college need to have minimal requirements of autonomy and accountability?
4. How is financial autonomy important in the functioning of college for its stated purposes?

3.3 AUTONOMY AS AN INSTRUMENT OF TRANSFORMATIONAL LEADERSJIP

Leadership is often described as the ability to enlist, mobilize, and motivate others to apply their abilities and resources to a given cause. This capacity is fundamental to discussions of charismatic or transformational leadership in general and in the educational sphere in particular. It illuminates the ways in which individuals influence others and persuade them to devote their utmost efforts to tasks that promote their goals. Nonetheless, few studies have directly examined the relationship between various styles of leadership and different types of motivation among followers (Bono and Judge, 2003). The impressive body of empirical research on leadership has extensively compared styles and models of leadership. Most salient is the distinction between transformational and transactional leadership proposed by the full range model of leadership (Bass and Avolio, 1994).

Transformational leadership inspires individuals to exceed their expected behaviour (Yukl, 1998). This type of leadership enlists and motivates followers to identify with the leader and to develop an affinity for collective goals and visions. Transformational leaders' impact on their followers was ascribed to their ability to nurture followers' needs, empower them, and give them a sense of mission toward ethical and broad objectives that exceed their own goals. These leadership abilities were described as linked to transformational leaders' tendency to articulate a clear vision, serve as a model, and provide attention and consideration to followers. More specifically, Avolio et al. (1999) claimed that transformational leadership involves four main leadership behaviours: idealized influence, intellectual stimulation, individualized consideration, and inspirational motivation.

Transformational leaders exert idealized influence by considering their followers' needs, acting according to the organization's values and serving as a model to be emulated. They provide intellectual stimulation by soliciting creative thinking, challenging followers, and stimulating them to question, reframe problems, and approach old situations in innovative ways. These leaders display individualized consideration by attending to individual needs and differences and by helping followers work toward higher levels of potential. Lastly, transformational leaders provide inspirational motivation by providing meaning and challenge, acting enthusiastically, and supporting team spirit (Avolio et al., 1999). Under a transformational leadership style, followers commit themselves to common purposes and are encouraged to challenge basic organizational or social assumptions.

Despite the extensive comparative research on leadership styles, few empirical attempts were undertaken to examine the impact of various leadership styles on the motivation of followers. Yet, a number of scholars in the field have offered promising theoretical frameworks. To explain the motivational effect of charismatic (transformational) leadership, Shamir et al. (1993) maintained that such leaders foster intrinsic motivations related to self-concept. Their theory of leadership asserted that charismatic leaders promote followers' intrinsic motivation to act beyond their job description by elevating their self-esteem, self-value, and social identification. Following Shamir et al. (1993), Kark and Van Dijk (2007) employed Higgins's (1998) theory of regulatory focus to suggest that transformational leadership would predict followers' promotion of goals related to the self and to their hopes and aspirations. In contrast, Kark and Van Dijk (2007) argued that transactional leadership would focus on external expectations and obligations, and would predict followers' avoidant motivational orientation. These perspectives represent a convergence of leadership and motivation theories; however, they remain in the realm of theory that has not yet been verified by direct empirical research. In an attempt to bridge this gap, the current empirical study investigated the relations between leadership styles and followers' autonomous versus controlled motivation. Based on self-determination theory (SDT) (Ryan and Deci, 2000b), hypothesized that transformational leadership would predict followers' autonomous motivation.

Many leadership scholars have agreed that transformational leadership plays a significant role in enhancing employee performance, trust, and commitment in organizations with a hierarchical authority structure. The reason for this significance is that transformational leadership can be understood as a process of creating a vision and delivering a sense of belonging to employees. Transformational leadership causes employees to perceive that the organization supports them and leads to attachments among the organization's members. Such leadership establishes a strong relationship between employees and the organization, which supports organizational purposes. In short, transformational leadership builds a mission-oriented culture within an organization through a social influence process among organizational members.

Leadership is widely regarded as one of the key factors for organisational success (Yukl, 2010). It has been a major topic of research in psychology for almost a century (Zaccaro and Klimoski, 2001). Such research, especially prominent in the social and organisational psychology literatures, tends to focus on the interpersonal processes between individuals, nominally leaders and followers as well as the nature of the relationship between them (Zaccaro et al., 2001). While, the last two decades have witnessed something of an explosion of interest in leadership and autonomy support that aims at empowering followers in organisations. Commenting on his thoughts about leadership, Bill Gates once said, "As we look ahead into the next century, leaders will be those who empower others". This statement seems to be predicting what seems to be the future structure of organisations. Nowadays, leadership is more and more concerned with motivation; leaders are more like employee supporters than employee supervisors, which make leaders facing the challenges of motivating followers. Thus, in the environment of fierce competition, and multiple challenges facing organisations, it has become primary need to empower followers and support their autonomy in order to ensure sustainable organisational motivation (Stone et al., 2009). Recent research has indicated that leadership is one of the factors that affect deeply employees' autonomy at work (Gagné and Bhave, 2011). Leadership, as a process, is both an art and science of motivating followers and influencing other positive outcomes. Whereas, psychological empowerment is one of the tools that provide followers felling of autonomy and self-determination in order to act effectively.

Factors of transformational leadership

There are four factors of transformational leadership. These are as follows:

- **Idealized influence**: This can be trusted and respected by followers which helps to make good decisions for the organization
- **Intellectual stimulation**: Encouraging innovation and creativity through challenging the normal beliefs or views of a group; promoting critical thinking and problem solving to make improvement of organization performance
- **Inspirational motivation**: Motivating followers to commit to the vision of the organization; encouraging team spirit to reach goals of increased revenue and market growth for the organization
- **Individual consideration**: Acting as coaches and advisors to the followers; encouraging followers to reach goals that help both the followers and the organization (Bass, 1985; Sidani, 2007).

Each of these factors can help managers to use this approach in the workplace.

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Check Your Progress

5. What is leadership? How does transformational leadership play a significant role?
6. List the four factors of transformational leadership.

3.4 LEADERSHIP IN EDUCATION MANAGEMENT AND CHANGE MANAGEMENT

It is a truism that change is the only constant, and principals who successfully lead their schools will inevitably lead them through periods of change. It is the principal's job to inspire and support change so that the school can move from where it is to where it needs to be to ensure the best outcomes for all its students, strengthen the professional practice of faculty and staff, and improve the school culture for all stakeholders. But change is always challenging, even where it is necessary, and principals play a crucial role in guiding their schools through the process. Principals do this by serving as both leader of change (vision-developer and people motivator) and manager of change (implementation planner and monitor). Change management requires true, visible ownership for outcomes from the highest levels. Principals leading change must understand the change dynamics within their particular school context and work directly with teams throughout the school to manage the change process. While principals have a foundational role to play, they cannot bring about meaningful change by themselves. In any schoolwide change effort, there are a number of stakeholders who will be impacted, including teachers, students, family & community members, as well as school partners and district leaders and teams.

Change management recognizes that for new systems to be successful, the stakeholders involved in implementation must understand and believe in them. As change is planned for and carried out, it is inevitable that stakeholders will have fundamental questions and concerns. If these questions about impact on personal practice and organization purpose and function are not adequately addressed, they can hamper successful implementation. Effective change management acknowledges and responds to stakeholder concerns as an integral means to achieving the intended purpose of the new approach: changed practice and improved student outcomes.

Experience has shown that simply implementing a new framework or process in a complex organization doesn't lead to substantive, sustainable change. Most key stakeholders in a school tasked with implementing a new approach have almost certainly experienced several previous waves of change with varying results; this has real implications for how they will perceive this latest effort. In order to see the benefit of any change effort, the individuals carrying out the change must be both engaged and supported.

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There are several important characteristics of effective change efforts, all of which fall within the principal's control to establish at the outset of any change initiative:

(1) **Design with the end with implementation in mind and place change within context.** Whenever principals lead work to develop a new system or process, they must think through what it will take to successfully implement that system within their particular school context. This includes thinking through the adaption and introduction of new system-wide initiatives within their specific school context: how can the district's priorities and rationale be explained to the school team? How does this process, policy, or direction align with other school priorities and how can it enable existing school goals and strategies? It is the principal's job to bring coherence to any change by placing it within the school's particular vision and plan.

(2) **Emphasize stakeholder engagement in planning and design**: Important work happens in the development, the conversations, and the shared understanding built through co-creation of key tools and processes or in planning for their implementation. This approach fosters true shared ownership of outcomes and it is a critical component of successful change. Nevertheless, it involves careful work to understand the non-negotiables for the design and implementation of a new system while taking into account the full range of specific interests and needs among stakeholders. Change is more successful when processes maximize effective and appropriate input while being clear and transparent about how input will be used – and what's off the table.

(3) **Plan for training and support through implementation**: Leadership must think beyond design of tools and processes into support for effective implementation. This support often includes providing training for stakeholders that utilizes best practices in adult learning. Effective training and support ensures that the implementers understand the rationale for the change, have the skills for successful implementation, and share ownership for outcomes. Principals should design the roles of key implementers carefully, asking not only what they will be responsible for but also what must "come off of their plate" in order to focus on high impact adoption of new practice. Principals and other early adopters should continue to be engaged in implementation support, following up to ensure that new practices are being effectively employed and all team members are on track to the desired outcomes.

(4) **Prioritize communication throughout**: A strong change management approach must include coordinated communication efforts. This should include clear and common messages, and follow-up on input provided by stakeholders.

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Key components of this communication include:

- Messaging that is appropriate to the audience.
- Consistency in messaging reflecting the shared language of the community.
- Connections to broader school strategies, priorities, and expectations for outcomes.
- Communication that serves as a feedback loop, with avenues for both pushing information out and also hearing back from key constituencies.

Major triggers for change in a school environment

There are two major triggers for change in a school environment: internally-driven and externally imposed change.

Internally-driven change is a deliberately-chosen pathway within the school community, as the principal and other school leaders see a significant disconnect between the school's vision and mission on the one hand and its current state on the other. In order for the school to move to where it needs to be, change has to happen. In these circumstances, the principal's major role is as a leader and manager of the change process. Even when change is the desired state, it can still be difficult and it must be carefully considered and supported. But, in these circumstances, principals are bolstered by the imperative for change and a great deal of autonomy within the school community to make change happen. There is still risk, however, that the principal and other early adopters will move without the rest of the school community or that change will not be supported or sustained, leaving the school far from the ultimate goals and even facing a setback after a failed effort.

Change can be externally-imposed when it happens to a school either because of district or state mandates (a new curricula, instructional mandate, or testing process, for example) or because of other external factors, such as an unforeseen turnover in staff or a significant change in the school population. In these cases, the principal's role as leader and manager of change is just as crucial, but there is an added challenge for the principal in providing coherence for the rest of the school community. While a new teacher evaluation system may be mandated district-wide, for example, principals have incredible leeway within their own buildings to help teachers see the new process as aligned with school goals for improving instruction and as a resource for building their individual practice. Principals focused on coherence look for the places of alignment between external changes and the school's specific mission and priorities. They place external change within the school context. Whether change is internal to your school's strategic planning and direction, or occurs because of external forces, it is important to recognize that you, as the principal, both lead and also experience change at the same time. Because of this, you will be most successful if you take time to understand the implications for you as well as your team. During change, it is more important than ever to practice self-reflective leadership, for your sake and for

your team's. Modelling transparency as you experience change will help your team manage their own responses.

Change leaders have to be flexible in their role, seizing opportunities, responding to stakeholders, and allowing their actions to be informed by context. Being a responsive change leader is a foundational part of a principal's role, so that the structured, process-oriented action steps of his or her role as change manager can move forward smoothly and have the intended impact.

3.4.1 Issues, Innovators, Adopters and Legends

Stakeholders such as teachers, students, family members and other school partners both react to and are central players in any change effort and principals must engage deeply with these groups. Strategies for principals leading change include seeking substantive input in the design phase, providing opportunities for deep engagement and training in the rollout phase, and ensuring ongoing support through implementation. All stakeholders benefit from an implementation process that is perceived as deliberate, supported, and aligned with both broad goals and reality on the ground. Ken Blanchard, a leadership and change management expert, outlined a framework for understanding the common experience of all individuals undergoing change. It can be a helpful starting point for principals supporting change initiatives in understanding the typical responses to change in themselves and others.

When change happens inevitably:

(i) People will feel awkward, ill-at-ease and self-conscious.

(ii) People initially focus on what they have to give up.

(iii) People will feel alone even if everyone else is going through the same change.

(iv) People can handle only so much change.

(v) People are at different levels of readiness for change.

(vi) People will be concerned that they don't have enough resources.

(vii) If you take the pressure off, people will revert to their old behavior.

As helpful as these typical reactions can be to understanding responses to change, it is also useful to see how the responses of an individual or community move over time as change initiatives are implemented. Researchers Ann Salerno and Lillie Brock have shown that individuals experiencing change frequently move through predictable phases in their response to that change, beginning with perceptions of loss and doubt to increasing familiarity – but also discomfort – with the change. If leaders and other champions maintain momentum and engagement in the change, individuals move into discovery and understanding, where the change begins to "make sense." The final stage, integration, culminates in a shared ownership of the change, with members of the community broadening the application of their new insights and skills beyond the original charge – transformational change.

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Personal Leadership through Change

It is important to note that when change comes to a school, it impacts you as the principal as well. To lead others effectively, you will need to be aware of your own responses to change and maintain your focus and resilience. Rather than seeing this as a distraction or a risk, it is an opportunity to model transparent, empathetic leadership for your school community. Teachers, students, and others will be watching you to see your reactions to change and to gauge your long-term commitment to new directions for the school.

Strategies for managing your own pathway through change include:

(i) Creating space for personal reflection in your leadership practice, recognizing your own reactions to change and growth areas for learning through new experiences.

(ii) Looking for yourself in the change cycle outlined on page seven: where are you? And how is this effecting your interactions with your team?

(iii) Reflect on the principal actions listed below. Are you demonstrating these leadership actions that are so crucial for guiding your school through change? What are two to three concrete strategies you can work on to build your practice in these areas?

(iv) Demonstrate transparency with your leadership team and with your school community more broadly, as appropriate in service of strong relationships. How are you experiencing change? How are you maintaining your focus and experiencing growth through these changes?

Check Your Progress

7. Why change management is crucial in leadership in education?
8. What principals can do to lead and manage change?

3.5 ANSWERS TO CHECK YOUR PROGRESS QUESTIONS

1. Public universities are supported by the Government of India and the state governments, while private universities are mostly supported by various bodies and societies. Universities in India are recognized by the University Grants Commission (UGC), which draws its power from the University Grants Commission Act, 1956. In addition, Professional Councils are established, controlling different aspects of accreditation and coordination. The types of universities controlled by the UGC include Central universities, State universities, Deemed universities and Private universities.
2. Many of the ills of Indian higher education can be attributed to the system of affiliation. Most conventional Indian universities are teaching-cum-affiliating;

and some of the larger universities have more than 600 colleges affiliated to them. The colleges have common syllabi and the students appear for a common examination usually conducted at the end of the year. For many universities, the conduct of examination has become the most important administrative function. The affiliating system was devised to regulate and standardize the quality of education. But with the tremendous increase in the number of institutions the system has become counter-productive. Because of it some sub-standard colleges serenely ride piggyback on the reputation of the mother institution. The affiliating system is a drag on the better institutions that would otherwise regularly revise and updates their curricula and introduces innovative programmes

3. It is necessary to identify the prerequisites of functional autonomy without which one cannot expect the colleges to perform the tasks assigned to them. It is also necessary to establish a broad consensus on what should be regarded as the minimal requirement of accountability vis-à-vis the college system.
4. The financial autonomy refers to the governance of College finances by its own Management. College should function without any outside intervention or pressures and should not involve itself in any power game from individuals or groups. Together with academic freedom, financial autonomy is an essential requirement of any progressive University. Keeping up to the financial commitments at the Government level and providing financial flexibility in matters of promotion on merit, research needs, student programmes are necessary.
5. Leadership is often described as the ability to enlist, mobilize, and motivate others to apply their abilities and resources to a given cause. This capacity is fundamental to discussions of charismatic or transformational leadership in general and in the educational sphere in particular. It illuminates the ways in which individuals influence others and persuade them to devote their utmost efforts to tasks that promote their goals.

   Transformational leaders exert idealized influence by considering their followers' needs, acting according to the organization's values and serving as a model to be emulated. They provide intellectual stimulation by soliciting creative thinking, challenging followers, and stimulating them to question, reframe problems, and approach old situations in innovative ways. These leaders display individualized consideration by attending to individual needs and differences and by helping followers work toward higher levels of potential. Many leadership scholars have agreed that transformational leadership plays a significant role in enhancing employee performance, trust, and commitment in organizations with a hierarchical authority structure.

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The reason for this significance is that transformational leadership can be understood as a process of creating a vision and delivering a sense of belonging to employees. Transformational leadership causes employees to perceive that the organization supports them and leads to attachments among the organization's members. Such leadership establishes a strong relationship between employees and the organization, which supports organizational purposes. In short, transformational leadership builds a mission-oriented culture within an organization through a social influence process among organizational members.

6. There are four factors of transformational leadership. These are as follows:
   - Idealized influence: This can be trusted and respected by followers which helps to make good decisions for the organization
   - Intellectual stimulation: Encouraging innovation and creativity through challenging the normal beliefs or views of a group; promoting critical thinking and problem solving to make improvement of organization performance
   - Inspirational motivation: Motivating followers to commit to the vision of the organization; encouraging team spirit to reach goals of increased revenue and market growth for the organization
   - Individual consideration: Acting as coaches and advisors to the followers; encouraging followers to reach goals that help both the followers and the organization (Bass, 1985; Sidani, 2007).
7. It is a truism that change is the only constant, and principals who successfully lead their schools will inevitably lead them through periods of change. But change is always challenging. Change management requires true, visible ownership for outcomes from the highest levels. Change management recognizes that for new systems to be successful, the stakeholders involved in implementation must understand and believe in them. As change is planned for and carried out, it is inevitable that stakeholders will have fundamental questions and concerns. If these questions about impact on personal practice and organization purpose and function are not adequately addressed, they can hamper successful implementation. Effective change management acknowledges and responds to stakeholder concerns as an integral means to achieving the intended purpose of the new approach: changed practice and improved student outcomes.
8. It is the principal's job to inspire and support change so that the school can move from where it is to where it needs to be to ensure the best outcomes for all its students, strengthen the professional practice of faculty and staff, and improve the school culture for all stakeholders. But change is always challenging, even where it is necessary, and principals play a crucial role in

guiding their schools through the process. Principals do this by serving as both leader of change (vision-developer and people motivator) and manager of change (implementation planner and monitor). Change management requires true, visible ownership for outcomes from the highest levels. Principals leading change must understand the change dynamics within their particular school context and work directly with teams throughout the school to manage the change process. While principals have a foundational role to play, they cannot bring about meaningful change by themselves.

3.6 SUMMARY

- The sphere of higher education has been marked by a phenomenal expansion during the five decades after Independence. Today, higher education in India is imparted through numerous Universities and equivalent institution
- The different commissions and committees that have examined the Indian higher education system, after independence, have identified the maladies that affect it and have also suggested remedies.
- Many of the ills of Indian higher education can be attributed to the system of affiliation. Most conventional Indian universities are teaching-cum-affiliating; and some of the larger universities have more than 600 colleges affiliated to them.
- Financial accountability of a College is important because in the public view, the taxpayer has a prerogative to demand proof of effective programme or performance of excellence of the College product or its effect on society
- It is necessary to identify the prerequisites of functional autonomy without which one cannot expect the colleges to perform the tasks assigned to them.
- The crucial test of efficiency and effectiveness of institution's administration lies in the fulfilment of the stipulated objectives of higher education.
- The financial autonomy refers to the governance of College finances by its own Management. College should function without any outside intervention or pressures and should not involve itself in any power game from individuals or groups.
- The concept of autonomy or autonomous colleges or accountability thereof can be systematically dovetailed in the aforesaid issues. It seems desirable to reiterate that the whole exercise will serve no purpose if Union Government and State Governments keep enjoying their control through its departments.
- Proper channelling of efforts and government impetus for autonomy can propel the global ranking of Indian institutions and push India higher on the world charts for education.

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- Leadership is often described as the ability to enlist, mobilize, and motivate others to apply their abilities and resources to a given cause. This capacity is fundamental to discussions of charismatic or transformational leadership in general and in the educational sphere in particular.
- Transformational leaders exert idealized influence by considering their followers' needs, acting according to the organization's values and serving as a model to be emulated.
- Leadership is widely regarded as one of the key factors for organizational success (Yukl, 2010). It has been a major topic of research in psychology for almost a century (Zaccaro and Klimoski, 2001).
- Commenting on his thoughts about leadership, Bill Gates once said, "As we look ahead into the next century, leaders will be those who empower others". This statement seems to be predicting what seems to be the future structure of organisations.
- Leadership, as a process, is both an art and science of motivating followers and influencing other positive outcomes. Whereas, psychological empowerment is one of the tools that provide followers felling of autonomy and self-determination in order to act effectively.
- It is the principal's job to inspire and support change so that the school can move from where it is to where it needs to be to ensure the best outcomes for all its students, strengthen the professional practice of faculty and staff, and improve the school culture for all stakeholders.
- Change management recognizes that for new systems to be successful, the stakeholders involved in implementation must understand and believe in them. As change is planned for and carried out, it is inevitable that stakeholders will have fundamental questions and concerns.
- Whenever principals lead work to develop a new system or process, they must think through what it will take to successfully implement that system within their particular school context.
- Important work happens in the development, the conversations, and the shared understanding built through co-creation of key tools and processes or in planning for their implementation.
- Leadership must think beyond design of tools and processes into support for effective implementation. This support often includes providing training for stakeholders that utilizes best practices in adult learning.
- A strong change management approach must include coordinated communication efforts. This should include clear and common messages, and follow-up on input provided by stakeholders.
- Internally-driven change is a deliberately-chosen pathway within the school community, as the principal and other school leaders see a significant

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disconnect between the school's vision and mission on the one hand and its current state on the other.

- Stakeholders such as teachers, students, family members and other school partners both react to and are central players in any change effort and principals must engage deeply with these groups.
- Researchers Ann Salerno and Lillie Brock have shown that individuals experiencing change frequently move through predictable phases in their response to that change, beginning with perceptions of loss and doubt to increasing familiarity – but also discomfort – with the change.
- It is important to note that when change comes to a school, it impacts you as the principal as well. To lead others effectively, you will need to be aware of your own responses to change and maintain your focus and resilience.

3.7 KEY WORDS

- **Accountability:** The obligation of an individual or organization to account for its activities, accept responsibility for them, and to disclose the results in a transparent manner.
- **Autonomy:** In developmental psychology and moral, political, and bioethical philosophy, autonomy is the capacity to make an informed, uncoerced decision. Autonomous organizations or institutions are independent or self-governing.
- **Transformational leadership:** This is a theory of leadership where a leader works with teams to identify needed change, creating a vision to guide the change through inspiration, and executing the change in tandem with committed members of a group.
- **Intellectual stimulation:** It is defined as having a leader who encourages innovation and creativity, as well as critical thinking and problem-solving. Intellectual stimulation involves arousing followers' thoughts and imagination, as well as stimulating their ability to identify and solve problems creatively.
- **Change management:** This is a collective term for all approaches to prepare, support and help individuals, teams, and organizations in making organizational change.

3.8 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. What are the main objectives behind the need for autonomy and accountability in higher education in India.?

2. What does accountability in the context of College finances refer to?
3. What are the different functions of a college administration?
4. Why is leadership regarded as one of the key factors for organisational success?
5. Write a short note on leadership in education and change management.
6. Why is it essential to prioritize communication for change management approach?

Long-Answer Questions

1. Discuss the basic concept of autonomy or autonomous body as it is envisaged and applied in India.
2. "Autonomy helps institutionalize quality and accountability." Justify this statement with relevant examples.
3. Discuss why has there been a growing interest in the study of leadership and autonomy.
4. Analyse critically the importance to understand that change affects others.

3.9 FURTHER READINGS

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UNIT 4 RESOURCES AND FACILITIES

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Structure

4.0 INTRODUCTION

In the last several years, on account of massive investment of resources by government, private and not-for-profit organizations, the world has achieved monumental growth in education sector. As a result, we have a global population which is growing with a keen thirst for knowledge, skill development and quality life. Among various levels, demand for higher education is rising in almost all countries including India. With extensive network of schools, colleges and professional institutes and rapidly rising income levels, there is growing demand for quality education in the country. In the last few decades, post-Independence, numerous policy initiatives have been taken on large-scale to bring in universalization of elementary education and bolstering up primary, higher secondary and higher education. Thanks to planned expenditure, various government schemes and policies, the country could achieve a significant increase in its literacy rate. But India is still far behind many developed countries in the world. As higher education contributes immensely to nation's development, emphasis is being given to establish institutions of global reputation, upgrading the existing ones and modernizing the education sector as a whole.

However, there is still a huge gap between the demand and the supply in higher education despite the fact that overall enrollment of students has rapidly increased. Scholars and academics have pointed out that low quality of teaching and learning, constraints on research and innovation and uneven growth and access to opportunity are some of the factors responsible for relatively low rate of students'

intake in professional courses. Apart from various initiatives namely New Education Policy, government needs to allot a big chunk of financial resources in the education sector.

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Like several countries, the contribution of private capital in education is also increasing in India. Private universities, though unaffordable to the large sections of the society, have opened a new vistas of opportunities to students to equip themselves with employable skills and degrees. Having world's largest population in the age group of 5-24 years, India holds a very important place in the global education industry.

In addition to analyzing size and trend of government funding especially in higher education, this unit discusses the nature of private funding and community resources in education.

4.1 OBJECTIVES

After going through this unit, you will be able to:

- Analyze the size and trend of government funding in higher education
- Recognize the role of private funding in the Indian education sector
- Understand the need of various community resources in education
- Discuss how teachers can harness and motivate students in the field of education

4.2 GOVERNMENT FUNDING: SIZE, TREND AND NEED FOR HIGHER SUPPORT

The last decade has seen tremendous changes in higher education financing, with a predominant shift of higher education costs from the government to private sources: financial markets, philanthropy and households. There is overall rise in the demand for higher education worldwide. There has been an increase in education costs fueled by rising wages, costs of state of the art infrastructure and slow response to cost-pressures. These costs are to a greater extent being borne by the globally growing number of students enrolled in higher education. Another change has been the introduction of Massive Online Open Courses (MOOCs), which can offer cheaper and more accessible education to students. Declining government revenues and greater emphasis on better use of the limited resources have led to more monitoring of research outputs, as the government demands stricter measures of results for their funding and the private sector funded research has very clear goals.

Globally, the Indian Education sector is amongst the largest, with an extensive network of more than 1.4 million schools (with over 200 million students enrolled) and more than 850 universities and 40,000 higher education institutes and is expanding rapidly in light of rising income levels and growing demand for quality education in the country. Further, India also has the world's largest population in

the age bracket 3 to 23 years which highlights the large addressable market for this sector.

Education sector in India is a mix of government-operated and privately operated educational institutions and allied education products and services providers. India has a significant young population which calls for a robust education sector to harness potential for human capital. The sector is highly influenced by various government schemes and policies launched primarily to improve the quality of education and the planned expenditure through several schemes. Literacy in India is one of the key deterrents to the socio-economic progress of the country. The Indian literacy rate is currently 76% (Source: 71st Survey of the National Sample Survey Organization (NSSO)) compared with 17% at the end of 1950. Although there has been a significant increase in India's literacy levels, it still has the largest illiterate population in the world, with its literacy rate below the world average of 86%. Additionally, according to various experts, a majority of the graduates from universities are not easily employable.

The education sector in India has witnessed a paradigm shift in recent times. Once operated primarily as a philanthropic or a nation building activity, it has since transformed into a 'sector in its own right'. However, due to an increase in competition coupled with the increasing need to provide quality education and generate positive learning outcomes, the Indian education sector is slowly but steadily moving on the reforms track.

The education sector in India comprises pre-school, primary and higher secondary education. This is then followed by the higher education segment, which includes professional and technical education. In addition, the segment also comprises vocational training, coaching classes, distance education through e-learning platforms and the like. The Indian Education Sector can be broadly classified into two categories: public sector and private sector.

Higher Education contributes to the national development by imparting specialized knowledge and skills. The segment targets 13% of the Indian population in the age group of 18-23 years. There are three levels of qualification within the higher education segment in the country – graduation level, post-graduation level and doctoral degree. All the colleges offering these courses need to be affiliated to a university (under purview of the central regulatory body – University Grants Commission (UGC)). There are also individual bodies such as All India Council for Technical Education (AICTE), Medical Council of India (MCI), etc. which are responsible for the regulation, coordination and development of higher education in India. The higher education institutions in India are required to be run under a not-for-profit trust/ society. As per AISHE, a survey conducted annually by Ministry of Human Resource Development, there has been significant increase in the number of universities and colleges listed in AISHE during the FY13-FY17 period.

The education loan scheme was introduced in 2001 by banks for facilitating higher education especially for the poor and meritorious students. With rising cost of education, preference for education in private institutions (which is 1.5 to 2 times expensive when compared to government institutions), easy availability of education loans in India is also one of the drivers of growth in enrolments in higher education segment.

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Education industry in India is set to chart higher in the coming years. Rising income of households and demand for quality education coupled with a large young population and low gross enrolment ratios offer tremendous growth opportunities in the sector. Meanwhile, Government initiatives to modernize the sector have also gained ground with private players and entrepreneurs undertaking investments to increase their share of the growing market.

The regulatory framework governing Higher Education in India is complex with both the central and state governments sharing the roles and responsibilities. University Grant Commission (UGC) set up in 1956 is the apex body governing university education in India with the mandate of coordination and maintenance of standards for university education in India.

Central Government: The Ministry of Human Resource Development (MHRD) is the nodal authority through which the central government plays a key role in defining public policy for higher education in the country. There are 15 other ministries and departments which also regulate higher education.

State Government: The state government discharges its responsibilities through respective government departments for higher education. Many states have also set up state councils and advisory boards for providing guidelines for the proper functioning of higher education institution in the states. The Central Advisory Board of Education (CABE) acts as a common forum for coordination between the state and central governments.

Regulatory and Professional Councils: Statutory bodies such as University Grants Commission (UGC) and All India Council for Technical Education (AICTE) along with professional councils such as Bar Council of India (BCI), etc., are responsible for the regulation, coordination and development of higher education in India. The UGC is the apex body governing higher education system in India.

Accreditation Bodies: The regulatory bodies/professional councils are assisted by accreditation bodies such as National Assessment and Accreditation Council (NAAC) and National Board of Accreditation (NBA) in benchmarking higher education institutions. National Council for Teacher Education (NCTE) and National University of Educational Planning and Administration (NUEPA) are responsible for teacher accreditation.

Other policy initiatives by the Government:

- Since 2002, 100% Foreign Direct Investment (FDI) has been allowed through the automatic route in the education sector. In November 2016, Ministry of Skill Development and Entrepreneurship launched Pradhan Mantri YUVA Yojana, for providing entrepreneurship education and training to students in the country.
- In October 2017, in order to boost the Skill India mission, two new schemes, SANKALP and STRIVE were launched with an outlay of ` 6,655 crore.
- Revitalizing Infrastructure and Systems in Education (RISE) by 2022 was announced in union budget 2018-19 with an outlay of ` 1 lakh crore for four years.

- The government has also continued the Credit Guarantee Fund for Education Loans Scheme and the Central Sector Interest Subsidy Scheme with a financial outlay of ` 6,600 crore for period from 2017-18 to 2019-20. The scheme is expected to provide education loans to 10 lakh students during this period.

The Government of India is working on the final draft of the New Education Policy to address the changing dynamics in the education industry of the country as per the requirement of the population. The final draft of the New Education Policy was expected mid-2018. Allocation for Education industry Government expenditure on education rose from 3.3% of GDP in FY05 to 4% in FY12. However, this declined to a low of 2.4% in FY16 and since then inched up to reach 2.7% in FY18.

Another significant driver for educational change is population growth and the demographic profile. More than 50% of India's population is under the age of 25. By 2020, India will have one of the youngest populations in the world, with an average age of 29 years. India will outpace China in the next ten years as the country with the largest tertiary-age population and its relative success in boosting primary enrolment, access to secondary education and improved retention rates should see it have the largest growth in tertiary enrolment in the world in 2020. The OECD predicts that in 2020, 200 million of the world's 25-34 year olds will be university graduates and 40% of these will be from China and India, representing a huge proportion of the global talent pool.

India has a low rate of enrolment in higher education, at only 18%, compared with 26% in China and 36% in Brazil. There is enormous unmet demand for higher education. By 2020, the Indian government aims to achieve 30% gross enrolment, which will mean providing 40 million university places, an increase of 14 million in six years.

Challenges that higher education in India face

Despite significant progress over the last ten years, Indian higher education is faced with four broad challenges. These are:

1. The low quality of teaching and learning
2. The supply-demand gap
3. Uneven growth and access to opportunity
4. Constraints on research capacity and innovation

1. **Low quality of teaching and learning:** The greatest challenge facing higher education in India is the chronic shortage of faculty. Various reports estimate that 30-40% of faculty positions are unfilled. Most faculty have had no training in teaching.

   Other issues in teaching and learning which compound the problems include:

   - Outdated, rigid curricula and the absence of employer engagement in course content and skills development. Very few opportunities for interdisciplinary learning.

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- Pedagogies and assessment are focused on input and rote learning; students have little opportunity to develop a wider range of transversal skills, including critical thinking, analytical reasoning, problem-solving and collaborative working.
- High student: teacher ratio, due to the lack of teaching staff and pressure to enroll more students.
- Separation of research and teaching; lack of early stage research experience.
- An ineffective quality assurance system and a complete lack of accountability by institutions to the state and central government, students and other stakeholders. This has resulted in graduates with low employability, a common feature of higher education across south Asia, and an insufficient basis for movement to higher levels of study and research. These problems are endemic across higher education institutions in India, including many of the 'top tier' institutions, but particularly so in affiliated colleges and state universities.

2. **The supply-demand gap**: Despite an average growth rate of over 7% in the last decade, India's GER in higher education is very low. By some estimates, even if India succeeds in its target of 30% GER by 2020, 100 million qualified students will still not have places at university. India needs to drastically increase the number of places at universities and enrolment through distance learning programmes. Over the last decade, the diversity of courses offered by universities and colleges has narrowed, resulting in saturated markets for engineers, technology graduates and MBAs.
3. **Uneven growth and access to opportunity**: Despite efforts to spread the location of higher education institutions more evenly across the country, there is wide variation, particularly between urban and rural areas, but also between states. There are still significant multi-dimensional inequalities in enrolment rates between rural and urban populations, rich and poor, minority and mainstream communities, men and women and people with disabilities. 'Inclusive growth' is a priority for reform in Indian education. With the growth in the middle classes, Indian universities must prepare themselves for considerable changes in student profile.
4. **Constraints on research capacity and innovation**: India does not have enough high quality researchers. The number of students taking PhDs and entering research posts is very low: 4,500 PhDs are awarded per year in science and engineering, compared to 30,000 in China and 25,000 in the US. There is systemic segregation of teaching and research; most teaching-focused universities (the vast majority) do not provide students with research experience or the skills which would prepare them for research careers.

Despite a growing reputation for 'frugal innovation'35, mainly driven from the private sector, the ecosystem for innovation in Indian research institutions is weak. The causes, among others, stem from a lack of multidisciplinary working, no development for faculty and students in areas to stimulate innovation and few links with industry. These constraints reveal themselves in the failure of Indian institutions

to make their mark in the world global rankings. All the above challenges are addressed through the Government of India's 12th Five-Year Plan for higher education.

The greatest reform in the governance and funding of state universities will come through the central government's Rashtriya Uchchatar Shiksha Abhiyan (RUSA) or National Mission for Higher Education programme, a key part of the 12th Five-Year Plan. RUSA aims to "have a completely new approach towards funding, regulation and governance of higher education in state universities; it will be based on key principles of performance-based funding, incentivizing well performing institutions and decision-making through clearly defined norms." This new framework was approved, with funding, by the Indian government in October 2013. Although it is too early to make any long term predictions, the initial stages of the programme, which lay the groundwork for national implementation, have been markedly swift.

Under RUSA, the central government has committed extra funding to most states for higher education in the ratio 65:35 central to state funding. This represents a significant increase in ring-fenced funding to state universities. However, there are conditions: state governments have to set up autonomous State Higher Education Councils (SHECs), which will be responsible for the planning, quality assurance, monitoring and evaluation of the state's higher education provision, in order to enhance quality and improve access to the sector. In effect, the governance of higher education, except for centrally-funded institutions of national importance, will be devolved almost entirely to the states.

Major Initiatives

Some of the major initiatives taken by the Government of India are:

- In August 2018, Innovation Cell and Atal Ranking of Institutions on Innovation Achievements (ARIIA) were launched to assess innovation efforts and encourage a healthy competition among higher educational institutions in the country.
- In August 2018, Government of India launched the second phase of 'Unnat Bharat Abhiyan' which aims to link higher educational institutions in the country with at least five villages. The scheme covers 750 such institutions.
- The allocation for school education under the Union Budget 2018-19 is expected to increase by 14 per cent, to focus on accelerating existing schemes and quality improvement.
- In order to boost the Skill India Mission, two new schemes, Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) and Skill Strengthening for Industrial Value Enhancement (STRIVE), have been approved by the Cabinet Committee on Economic Affairs (CCEA), Government of India, with an outlay of ` 6,655 crore (US$ 1.02 billion) and will be supported by the World Bank.
- The Ek Bharat Shreshtha Bharat (EBSB) campaign is undertaken by Ministry of Human Resource Development to increase engagement between states, union territories, central ministries, educational institutions and general public.
- Prime Minister Mr Narendra Modi launched the Skill India initiative: '*Kaushal Bharat, Kushal Bharat'*. Under this initiative, the government

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has set itself a target of training 400 million citizens by 2022 that would enable them to find jobs. The initiatives launched include various programmes like: Pradhan Mantri Kaushal Vikas Yojana (PMKVY), National Policy for Skill Development and Entrepreneurship 2015, Skill Loan scheme, and the National Skill Development Mission.

- In December 2018, the Government of India published that 3.43 million candidates had enrolled in the PMKVY 2016-20 scheme. Up to January 24, 2019 as many as 2.53 million candidates were trained under the scheme's Short Term Training (STT).

Check Your Progress

1. How is Indian education sector positioned globally?
2. Why is education industry in India poised for higher growth?
3. What are the broad challenges that Indian higher education is facing today?
4. List the two new schemes which were launched to boost the Skill India Mission.

4.3 PRIVATE CAPITAL IN EDUCATIONAL INVESTMENT

In Asia, there are variations in private and public ownership of institutes. This is a measure of universities rather than enrolment, that is, there can be greater percent of students enrolled in private universities than the percentage privately owned universities. The growth of private universities can often be unregulated. In China, by 2006, 10 percent students were enrolled in private institutions. In India, by 2008, 37 percent of students were enrolled in private universities.

Revenues for universities can be from the following sources:

- **Net tuition revenue**: revenue earned through tuition fees, excluding institutional aid
- **Sponsored research fund**: external research fund to support particular research activities
- **Special purpose fund**: funds aligned for specific project
- **Government grants**: revenues received through state and local level legislative organizations
- **Private grants:** affiliated gifts, investment returns, investment income through interest, dividend income, rental income or royalty, endowment income from trusts and fund
- **Independent Sources**: revenue generated from hospitals and other independent operations
- **Auxiliary services**: secondary operating activities like hostels, parking, food services

Increasing Education Costs

The costs of university education are rising at levels higher than inflation rates. In the United States, tuition for a public four-year institution in 1970 was $358 per semester. If it would have grown in pace with inflation, the average tuition at public colleges should have been $2,052 in 2010, instead it is $6,695 (American Institute of Research, 2012). In the United States, the rise in higher education cost exceeds the rise in service sector prices and healthcare cost (Martin, 2009, p. 3). According to a study conducted by Canadian Centre for Alternative Policies (2013), between 1990- 91 and 2012-13, average tuition fee has increased from $1,464 to $6,348. Even if inflation is taken into account, prices have tripled.

This can be attributed to the following reasons.

- Firstly, there is greater government austerity.
- Secondly, in conventional bricks and mortar universities, the introduction of technology is adding to costs rather than reducing it (Johnston & Marcucci, 2007, p. 5).
- Thirdly, competing for better education rankings leads to higher costs to attract students. The student demand for higher education remains inelastic to price, as students are willing to pay a high price for a good university.
- Fourthly, there is increasing competition for quality faculty and senior managers, with high salaries in an extremely labour intensive industry.

Increasing Costs of Faculty

Global competition has also increased the cost of hiring world class faculty, especially among the global English language based universities. Universities risk losing top educators to higher-paying or higher-profile jobs both within and outside academia. In many countries the world class faculty salaries tend to increase more than other costs. The compensation to teachers is more than 40 percent of current expenditure in Argentina (51.8 percent), Austria (56.1 percent), Belgium (50.4 percent), Denmark (46.5 percent), Germany (46.7 percent), Luxembourg (60.8 percent), Spain (56.6 percent), Switzerland (48.1 percent) and the United Kingdom (43.7 percent) [OECD, 2013]. In Higher education industry, it is extremely hard to substitute labour with capital, making it hard to reduce these costs substantially.

New Sources of Revenue

Rise of Private Financing in tertiary education acquires maximum resources from private financing out of all levels of education. Private finance includes households, the market, various industries, alumni and philanthropy. In most OECD countries, households spend twice as much as any other private entity on higher education (Institute for Higher Education Policy, 2007, p. 4). The role of private finance has varied worldwide. Nordic countries, Belgium, and Iceland, have high level of state support hence, hence not requiring much private finance. On the other end of the spectrum, in the United States, historically, private finance has played a strong role (Institute for Higher Education Policy, 2007, p. 3). The expenditure covered by all private institutions only constitutes less than five percent of the total expenditure in Denmark, Finland and Norway, to more than 40 percent in Australia, Canada, Israel, Japan and the United States and over 70 percent in Chile, Korea and the United Kingdom (OECD, 2013, p. 202).

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Between 2005 and 2010, the increase in private expenditure was more than ten percent in Australia, Italy, Portugal and the Slovak Republic, and more than 50 percent in the United Kingdom (OECD, 2013, p. 201). Private financing has also made big leaps in post-communist China where from 1990 to 2001, the share of public financing in Chinese higher education dropped from 99 percent to 55 percent. In India, the government is debating 100 percent Foreign Direct Investment. In Latin American countries, Argentina, Chile, and Jamaica, money from private sources accounted for more than 40 percent of all spending on higher education (Bollag, 2007). In Latin America, Venezuela and Bolivia are exceptions where both have reduced the role of private financing (Institute for Higher Education Policy, 2007, p. 19). While endowments have traditionally been a large source of funding, market weakness post the financial crisis have reduced the endowment funds that most institutions rely on (Deloitte, 2011, p. 5).

Countries with the highest private non-household support for education are Canada, the United States and Australia (Institute for Higher Education Policy, 2007, p. 6). At the same time, public funds are the major source of funding for tertiary education in all countries and account for 60 percent (Chile) to nearly 98 percent (Finland and Sweden) of total expenditure amongst the OECD countries. The Asian giants India and China devote less than one percent of their GDP to higher education. India spent 0.8% of GDP on tertiary education in 2005 and China spent 0.4 percent of its GDP on higher education in 1999 (ADB, 2012, p. 6), while Brazil spends 0.9 percent of its income. In many countries public expenditure also supports private universities. For example, in Belgium the direct public expenditure on private institutions is 46.3 percent, in Israel it is 86.4 percent, and in Estonia it constitutes 50.8 percent of the expenditure budget. In the United Kingdom all government budget goes to government dependent private institutions. Asia increasingly looks at private institution to play a major role. In India, there is mushrooming of unaided private sector institutes. Philippines has traditionally had 75 percent of its student enrolment in private institution (ADB, 2012, pp. 7-8).

4.3.1 India's Position in the Global Education Industry

India holds an important place in the global education industry. India has one of the largest networks of higher education institutions in the world. However, there is still a lot of potential for further development in the education system. Moreover, the aim of the government to raise its current gross enrolment ratio to 30 per cent by 2020 will also boost the growth of the distance education in India.

India has the world's largest population of about 500 million in the age bracket of 5-24 years and this provides a great opportunity for the education sector. The education sector in India is estimated at US$ 91.7 billion in FY18 and is expected to reach US$ 101.1 billion in FY19. Number of colleges and universities in India reached 39,050 and 903, respectively in 2017-18. India had 36.64 million students enrolled in higher education in 2017-18. Gross Enrolment Ratio in higher education reached 25.8 per cent in 2017-18. The country has become the second largest market for e-learning after the US. The sector is expected to reach US$ 1.96 billion by 2021 with around 9.5 million users.

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The total amount of Foreign Direct Investment (FDI) inflow into the education sector in India stood at US$ 2.21 billion from April 2000 to December 2018, according to data released by Department of Industrial Policy and Promotion (DIPP).

The education and training sector in India has witnessed some major investments and developments in the recent past. Some of them are:

- Indian education sector witnessed 18 merger and acquisition deals worth US$ 49 million in 2017.
- Of all the startups in India, 3,500 are catering to the education space. These startups received close to US$ 700 million funding in 2018.
- The Ministry of Human Resource Development, Government of India is also planning to raise around ` 1 lakh crore (US$ 15.52 billion) from private companies and high net worth individuals to finance improvement of education infrastructure in the country.
- India has signed a loan agreement with World Bank under 'Skills Acquisition and Knowledge Awareness for Livelihood Promotion' (SANKALP) Project to enhance institutional mechanisms for skills development.
- Singapore is going to open its first skill development centre in Assam, which will provide vocational training to youth in the region.

Challenges of India's education sector

In 2030, it is estimated that India's higher education will:

- Adopt transformative and innovative approaches in Higher education.
- Have an augmented Gross Enrolment Ratio (GER) of 50 per cent
- Reduce state-wise, gender based and social disparity in GER to 5 per cent.
- Emerge as a single largest provider of global talent, with one in four graduates in the world being a product of the Indian higher education system.
- Be among the top five countries in the world in terms of research output with an annual R&D spent of US$ 140 billion.
- Have more than 20 universities among the global top 200.

Education sector has seen a host of reforms and improved financial outlays in recent years that could possibly transform the country into a knowledge haven. With human resource increasingly gaining significance in the overall development of the country, development of education infrastructure is expected to remain the key focus in the current decade. In this scenario, infrastructure investment in the education sector is likely to see a considerable increase in the current decade.

Check Your Progress

5. What are the sources of revenues for universities?
6. What are some of the major investments and developments in the recent times witnessed in the education and training sector in India?

4.4 COMMUNITY RESOURCES: FINANCIAL, INTELLECTUAL, INFRASTRUCTURAL AND MOTIVATIONAL RESOURCES

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Community resources are assets in a community that help meet certain needs for those around them. These resources can be essential in developing skills post-discharge by helping the client diversify their range of outlets of support, expression and natural self-development. Organizations provide programs and activities within communities so that local participants may have access to services and information intended to change behaviors to reduce the risk of disease within the community. Both the availability and quality of materials can be barriers to a quality education. In many countries there are insufficient basic materials such as blackboards and chalk, textbooks, teacher support materials, student workbooks, and supplementary learning aids. Since both values and attitudes significantly affect the way a student learns, they form an important part of the school curriculum. The purpose of learning and teaching resources is to provide a source of learning experiences for students.

4.4.1 Financial Resources

Lack of financial resources devoted to education can be evidenced in many ways, including: lack of schools and other facilities; insufficient classrooms; insufficient, underpaid, and/or insufficiently trained teachers; lack of management and supervision; lack of and/or poor quality textbooks and other learning materials; and insufficient attention to standards and quality assurance. Each and every one of these results of insufficient funding can act as a barrier to any child seeking a primary education.

By far, the greatest financial contribution to primary education comes from domestic funding—depending on the country, these may be from public (the most common) or private sources. When a country is poor, it probably will not have sufficient domestic funds to pay for the provision of a quality education for all.

External funding does contribute to the education funding gap in a number of countries, however, the EFA Global Monitoring Report (2013/14) notes that aid to education has stagnated in recent years. Donors have not lived up to the commitment that they made at the 2000 World Education Forum in 2000.

Grants and Financial Resources for Primary/Secondary Teachers and Schools

- **Build It Yourself-Let's Play Community Construction Grants**

Grants of up to $15,000 will be awarded for the purchase of playground equipment. This is available for schools, communities, and non-profits that do not have any or have unsafe playground equipment. Applications are accepted on a rolling basis.

- **Fund for Teachers Grant**

Grants of up to $10,000 will be awarded for a teachers' professional development. Teachers must have three years' experience, spend at least 50% of their time

directly providing instruction to students, and be returning to the classroom in the consecutive school year. Individuals may apply for up to $5,000 and teams may apply for up to $10,000.

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- **ILA Nila Banton Smith Teacher as Researcher Grant**

Grants of up to $5,000 will be awarded to teachers who show outstanding leadership in translating theory and current research into practice in developing content area literacy. Teachers must be members of the International Literacy Association and be practicing K-12 teachers. Group and individual applications will be accepted.

- **Ezra Jack Keats Mini Grant**

Grants of up to $500 will be awarded to public schools, libraries, preschools, and Head Start programs seeking additional funding for programs outside of the curriculum. Funds are for any public program within the United States.

- **American Honda Foundation**

Since 1959, Honda has made it a priority to give back to communities throughout the United States. Through its various facilities and manufacturing plants as well as the Torrance, California headquarters, Honda has contributed to local organizations that focus on a variety of areas, including education, technology, medical research and community support. Click on "Honda Foundations" for more information.

- **CVS Caremark**

The CVS Caremark Community Grants program awards funds to nonprofit organizations for programs targeting children with disabilities; programs focusing on health and rehabilitation services; public schools promoting a greater level of inclusion in student activities and extracurricular programs; and initiatives that give greater access to physical movement and play.

- **DonorsChoose.org**

This "citizen philanthropy" supports donations to school teachers who post classroom project requests on its site. Donors browse the requests and donate to projects of their choice. When a project reaches its funding goal, the site delivers the materials to the school. Donors receive photos of the project taking place, a thank-you letter from the teacher, and a cost report showing how each dollar was spent. Donors who give over $100 also receive hand-written thank-you letters from the students.

- **Doug Flutie Jr. Foundation for Autism**

The Doug Flutie Jr. Foundation awards grants on an annual basis to (a) non-profit organizations and schools that provide services, education and advocacy for children with autism spectrum disorder and (b) organizations that conduct research on the causes and effects of autism. Grant guidelines are posted on its Web site each year in July.

- **Elastic Band Co. Scholarship**

This scholarship ensures that underrepresented individuals have opportunities to access higher education in pursuit of fashion and/or entrepreneurship.

• **FCEC Nancy Givens Instructional Grant**

The Florida Council for Exceptional Children (FCEC) sponsors this instructional grant to support innovative projects to supplement the classroom curriculum. Applicants must be CEC members who teach students with exceptionalities in preschool, elementary, secondary, vocational, special center, private, or hospital schools. Multiple grants of up to $500 will be awarded annually.

It is generally accepted that countries should allocate 20% of their budgets to education. Globally, (including wealthy countries) only 15% of government expenditure was directed to education in 2011, often with a bias towards higher education. The EFA Global Monitoring Report (2013/14) notes that 25 countries, many with very high numbers of OOSC, dedicate less than 3% of GNP to education rather than the recommended 6%.The problem of insufficient financial resources is further exacerbated by the need for sustained economic growth, particularly in poor countries, and the existence of ways and means to ensure distribution of resources including fiscal policy, tax systems and budget reforms.

4.4.2 Intellectual Resources

Knowledge-based society is impacted by technology and manufacturing methods which are changing continuously and constantly. "Intangible capital" and knowledge result in the highest added value and only a click on the computer might mean as much as a physical asset (Bedrule-Grigoruþã, 2006). At the dawn of this new era, intellectual capital was used for the first time to explain the importance of intellectual resources such as: information, knowledge and expertise in a modern society (Sarrocco, 2004). Education and research, irrespective of how noble they might be, are not activities themselves. They are means that help one build a certain type of society and knowledge emerges as a catalyst accelerating the promotion of technical progress and raises the efficiency of any human activity.

Knowledge-based society confers new dimensions to the learning process namely focusing on learning and innovation is no longer the feature of a small group of people and several forms of training are used: training employees how to learn; moving employees inside the fields of their specialty and also to other fields; working in "intervention teams" ("task force"); participation in practical lectures and seminars, periodical reflection reunions, creativity stimulation meetings, training stages and study visits; individual learning according to updated curricula (Chivu – Stãnescu, 2009). Knowledge-based society gradually replaces the industrial one which in its turn has replaced the agrarian society, the latter two being centered on the production of material goods, thus knowledge-based society including information as power in its broadest meaning – no matter whether it is political, economic, financial – the superior acquisition, mastering and capitalization of information, therefore the cornerstone of the society (Nãstase, 2011).

The concept of "intellectual capital" also known as the "currency of the new millennium" is the key to success in the "era of knowledge" (Moroianu, 2009), a way to create value and a hidden resource in an organization (Jianu and Brãtianu, 2009).

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The conceptual development of intellectual capital has taken place in two directions (Curaj and Jianu, 2010):

1. The increase in an organization's competitiveness and of a strategic advantage on more competitive markets by the intensive capitalization of intangible resources;
2. Enhancing the success of a company which has had an ascending trend of the ratio between market value and balance sheet financial value.

The competitive advantage generated by intellectual capital envisages the acquisition of the same benefits as those acquired by competitors, yet at lower costs and it will mainly belong to those well-informed, innovative and creative. It is well-known in modern society that most knowledge, skills, qualifications are acquired at school, by means of training and educational processes. Therefore, education has been recognized to play the primordial role in the development of human capital as well as in the economic growth of a country. Thus, education plays a major role in the context of knowledge-based society whose benchmark is intellectual capital, creativity and innovation corroborated with the training of specialists for the new society and their active participation in research and innovation processes.

4.4.3 Infrastructural Resources

Education infrastructure includes suitable spaces to learn. This is one of the most basic elements necessary to ensure access to education. School classrooms are the most common place in which structured learning takes place with groups of children. While learning also takes place in a variety of different types of spaces—tents, temporary shelters, plastic sheeting, shade of trees, places of worship, people's homes, and so on—families and communities expect formal education to take place in classrooms that have been designed for safety and comfort.

Some of the attributes of adequate infrastructure are:

- Sufficient space per child, usually guided by standards set by a country's Ministry of Education
- Sufficient space for 30-40 children per classroom, to permit efficient use of teachers
- Construction methods that ensure the safety of children in school, suited to natural hazards of the region
- Adequate separate sanitary facilities for boys and girls and for staff
- Increasingly, electricity and Internet connectivity.

Facilities may be inadequate in many ways, including being over-crowded or dangerous, lacking in adequate sanitary facilities and lacking water for hygiene. The health implications of inadequate toilets and sanitation are very serious. Girls in particular are pushed out of school if facilities are inadequate. Older primary-age girls will miss significant amounts of school or are unlikely to continue at school after they begin menstruation if sanitary facilities are poor or non-existent.

Additionally, children may be turned away from school when its official enrollment capacity is reached.

4.4.4 Motivational Resources: Harnessing and Commitment

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The best lessons, books, and materials in the world won't get students excited about learning and willing to work hard if they're not motivated. Motivation, both intrinsic and extrinsic, is a key factor in the success of students at all stages of their education, and teachers can play a pivotal role in providing and encouraging that motivation in their students. Of course, that's much easier said than done, as all students are motivated differently and it takes time and a lot of effort to learn to get a classroom full of kids enthusiastic about learning, working hard, and pushing themselves to excel.

Even the most well-intentioned and educated teachers sometimes lack the skills to keep kids on track. So whether you're a new teacher or an experienced one, try using these methods to motivate your students and to encourage them to live up to their true potential.

(i) Give students a sense of control

While guidance from a teacher is important to keeping kids on task and motivated, allowing students to have some choice and control over what happens in the classroom is actually one of the best ways to keep them engaged.

(ii) Define the objectives

It can be very frustrating for students to complete an assignment or even to behave in class if there aren't clearly defined objectives. Students want and need to know what is expected of them in order to stay motivated to work.

(iii) Create a threat-free environment

While students do need to understand that there are consequences to their actions, far more motivating for students than threats are positive reinforcements. When teachers create a safe, supportive environment for students, affirming their belief in a student's abilities rather than laying out the consequences of not doing things, students are much more likely to get and stay motivated to do their work. At the end of the day, students will fulfill the expectations that the adults around them communicate, so focus on can, not can't.

(iv) Change your scenery

A classroom is a great place for learning, but sitting at a desk day in and day out can make school start to seem a bit dull for some students. To renew interest in the subject matter or just in learning in general, give your students a chance to get out of the classroom. The brain loves novelty and a new setting can be just what some students need to stay motivated to learn.

(v) Offer varied experiences

Not all students will respond to lessons in the same way. For some, hands-on experiences may be the best. Others may love to read books quietly or to work in groups. In order to keep all students motivated, mix up your lessons so that students with different preferences will each get time focused on the things they like best.

Doing so will help students stay engaged and pay attention. 6. Use positive competition

(vi) Competition in the classroom isn't always a bad thing, and in some cases can motivate students to try harder and work to excel

Work to foster a friendly spirit of competition in your classroom, perhaps through group games related to the material or other opportunities for students to show off their knowledge.

(vii) Offer rewards

Everyone likes getting rewards, and offering your students the chance to earn them is an excellent source of motivation.

(viii) Give students responsibility

Assigning students classroom jobs is a great way to build a community and to give students a sense of motivation. Most students will see classroom jobs as a privilege rather than a burden and will work hard to ensure that they, and other students, are meeting expectations. It can also be useful to allow students to take turns leading activities or helping out so that each feels important and valued.

(ix) Allow students to work together

While not all students will jump at the chance to work in groups, many will find it fun to try to solve problems, do experiments, and work on projects with other students. The social interaction can get them excited about things in the classroom and students can motivate one another to reach a goal. Teachers need to ensure that groups are balanced and fair, however, so that some students aren't doing more work than others.

(x) Give praise when earned

There is no other form of motivation that works quite as well as encouragement. Even as adults we crave recognition and praise, and students at any age are no exception. Teachers can give students a bounty of motivation by rewarding success publicly, offering appreciation for a job well done, and sharing exemplary work.

(xi) Encourage self-reflection

Most kids want to succeed, they just need help figuring out what they need to do in order to get there. One way to motivate your students is to get them to take a hard look at themselves and determine their own strengths and weaknesses. Students are often much more motivated by creating these kinds of critiques of themselves than by having a teacher do it for them, as it makes them feel in charge of creating their own objectives and goals.

(xii) Be excited

One of the best ways to get your students motivated is to share your enthusiasm. When you're excited about teaching, they'll be much more excited about learning. It's that simple.

(xiii) Know your students

Getting to know your students is about more than just memorizing their names. Students need to know that their teacher has a genuine interest in them and cares

about them and their success. When students feel appreciated it creates a safe learning environment and motivates them to work harder, as they want to get praise and good feedback from someone they feel knows and respects them as individuals.

(xiv) Harness student interests

Knowing your students also has some other benefits, namely that it allows you to relate classroom material to things that students are interested in or have experienced. Teachers can use these interests to make things more interesting and relatable to students, keeping students motivated for longer.

(xv) Help students find intrinsic motivation

It can be great to help students get motivated, but at the end of the day they need to be able to generate their own motivation. Helping students find their own personal reasons for doing class work and working hard, whether because they find material interesting, want to go to college, or just love to learn, is one of the most powerful gifts you can give them.

Check Your Progress

7. What role do community resources play in educational development?
8. List some of the methods that a teacher should use to motivate and encourage students.

4.5 ANSWERS TO CHECK YOUR PROGRESS QUESTIONS

1. Globally, the Indian Education sector is amongst the largest, with an extensive network of more than 1.4 million schools (with over 200 million students enrolled) and more than 850 universities and 40,000 higher education institutes and is expanding rapidly in light of rising income levels and growing demand for quality education in the country. Further, India also has the world's largest population in the age bracket 3 to 23 years which highlights the large addressable market for this sector.
2. Education industry in India is set to chart higher in the coming years. Rising income of households and demand for quality education coupled with a large young population and low gross enrolment ratios offer tremendous growth opportunities in the sector. Meanwhile, Government initiatives to modernize the sector have also gained ground with private players and entrepreneurs undertaking investments to increase their share of the growing market.
3. Despite significant progress over the last ten years, Indian higher education is faced with four broad challenges. These are:
   (i) The low quality of teaching and learning
   (ii) The supply-demand gap

(iii) Uneven growth and access to opportunity

(iv) Constraints on research capacity and innovation

4. In order to boost the Skill India Mission, two new schemes, Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) and Skill Strengthening for Industrial Value Enhancement (STRIVE), have been approved by the Cabinet Committee on Economic Affairs (CCEA), Government of India, with an outlay of ` 6,655 crore (US$ 1.02 billion) and will be supported by the World Bank.

5. Revenues for universities can be from the following sources:
   - Net tuition revenue: revenue earned through tuition fees, excluding institutional aid
   - Sponsored research fund: external research fund to support particular research activities
   - Special purpose fund: funds aligned for specific project
   - Government grants: revenues received through state and local level legislative organizations
   - Private grants: affiliated gifts, investment returns, investment income through interest, dividend income, rental income or royalty, endowment income from trusts and fund
   - Independent Sources: revenue generated from hospitals and other independent operations
   - Auxiliary services: secondary operating activities like hostels, parking, food services

6. The education and training sector in India has witnessed some major investments and developments in the recent past. Some of them are:
   - Indian education sector witnessed 18 merger and acquisition deals worth US$ 49 million in 2017.
   - Of all the startups in India, 3,500 are catering to the education space. These startups received close to US$ 700 million funding in 2018.
   - The Ministry of Human Resource Development, Government of India is also planning to raise around ` 1 lakh crore (US$ 15.52 billion) from private companies and high net worth individuals to finance improvement of education infrastructure in the country.
   - India has signed a loan agreement with World Bank under 'Skills Acquisition and Knowledge Awareness for Livelihood Promotion' (SANKALP) Project to enhance institutional mechanisms for skills development.

- Singapore is going to open its first skill development centre in Assam, which will provide vocational training to youth in the region.

7. Community resources are assets in a community that help meet certain needs for those around them. These resources can be essential in developing skills

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post-discharge by helping the client diversify their range of outlets of support, expression and natural self-development. Organizations provide programs and activities within communities so that local participants may have access to services and information intended to change behaviors to reduce the risk of disease within the community.

8. Teacher should try these methods to motivate his/her students and to encourage them to live up to their true potential. These are:
   (i) Give students a sense of control

   While guidance from a teacher is important to keeping kids on task and motivated, allowing students to have some choice and control over what happens in the classroom is actually one of the best ways to keep them engaged.

   (ii) Define the objectives

   It can be very frustrating for students to complete an assignment or even to behave in class if there aren't clearly defined objectives. Students want and need to know what is expected of them in order to stay motivated to work.

   (iii) Create a threat-free environment

   While students do need to understand that there are consequences to their actions, far more motivating for students than threats are positive reinforcements. When teachers create a safe, supportive environment for students, affirming their belief in a student's abilities rather than laying out the consequences of not doing things, students are much more likely to get and stay motivated to do their work.

4.6 SUMMARY

- The last decade has seen tremendous changes in higher education financing, with a predominant shift of higher education costs from the government to private sources: financial markets, philanthropy and households.
- The education sector in India has witnessed a paradigm shift in recent times. Once operated primarily as a philanthropic or a nation building activity, it has since transformed into a 'sector in its own right'.
- Another significant driver for educational change is population growth and the demographic profile. More than 50% of India's population is under the age of 25. By 2020, India will have one of the youngest populations in the world, with an average age of 29 years.
- The greatest reform in the governance and funding of state universities will come through the central government's Rashtriya Uchchatar Shiksha Abhiyan (RUSA) or National Mission for Higher Education programme, a key part of the 12th Five-Year Plan.

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- In August 2018, Government of India launched the second phase of 'Unnat Bharat Abhiyan' which aims to link higher educational institutions in the country with at least five villages.
- The Ek Bharat Shreshtha Bharat (EBSB) campaign is undertaken by Ministry of Human Resource Development to increase engagement between states, union territories, central ministries, educational institutions and general public.
- In Asia, there are variations in private and public ownership of institutes. This is a measure of universities rather than enrolment, that is, there can be greater percent of students enrolled in private universities than the percentage privately owned universities.
- The costs of university education are rising at levels higher than inflation rates. In the United States, tuition for a public four-year institution in 1970 was $358 per semester.
- Global competition has also increased the cost of hiring world class faculty, especially among the global English language based universities. Universities risk losing top educators to higher-paying or higher-profile jobs both within and outside academia.
- Rise of Private Financing in tertiary education acquires maximum resources from private financing out of all levels of education. Private finance includes households, the market, various industries, alumni and philanthropy.
- Countries with the highest private non-household support for education are Canada, the United States and Australia. At the same time, public funds are the major source of funding for tertiary education in all countries and account for 60 percent (Chile) to nearly 98 percent (Finland and Sweden) of total expenditure amongst the OECD countries.
- India holds an important place in the global education industry. India has one of the largest networks of higher education institutions in the world. However, there is still a lot of potential for further development in the education system.
- With human resource increasingly gaining significance in the overall development of the country, development of education infrastructure is expected to remain the key focus in the current decade.
- Community resources are assets in a community that help meet certain needs for those around them. These resources can be essential in developing skills post-discharge by helping the client diversify their range of outlets of support, expression and natural self-development.
- It is generally accepted that countries should allocate 20% of their budgets to education. Globally, (including wealthy countries) only 15% of government expenditure was directed to education in 2011, often with a bias towards higher education.

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- Education and research, irrespective of how noble they might be, are not activities themselves. They are means that help one build a certain type of society and knowledge emerges as a catalyst accelerating the promotion of technical progress and raises the efficiency of any human activity.
- It is well-known in modern society that most knowledge, skills, qualifications are acquired at school, by means of training and educational processes. Therefore, education has been recognized to play the primordial role in the development of human capital as well as in the economic growth of a country.
- Education infrastructure includes suitable spaces to learn. This is one of the most basic elements necessary to ensure access to education. School classrooms are the most common place in which structured learning takes place with groups of children.
- Motivation, both intrinsic and extrinsic, is a key factor in the success of students at all stages of their education, and teachers can play a pivotal role in providing and encouraging that motivation in their students.

4.7 KEYWORDS

- **NSS:** National Sample Survey (NSS) is a continuing survey in the sense that it is carried out in the form of successive "rounds", each round usually of a year's duration covering several topics of current interest. It is conducted by the National Sample Survey Office (NSSO).
- **RUSA:** Rashtriya Uchchattar Shiksha Abhiyan (RUSA) is a holistic scheme of development for higher education in India initiated in 2013 by the Ministry of Human Resource Development, Government of India. The centrally sponsored scheme aims at providing strategic funding to higher educational institutions throughout the country.
- **SANKALP:** Skill Acquisition and Knowledge Awareness for Livelihood Promotion Programme (SANKALP) is a programme that is aimed at channelizing the energy of the youth in proper education, skill and jobs.
- **Gross Enrollment Ratio (GER)**: This is a statistical measure used in the education sector, and formerly by the UN in its Education Index, to determine the number of students enrolled in school at several different grade levels.
- **OECD:** The Organization for Economic Co-operation and Development (OECD) is an intergovernmental economic organization with 36 member countries, founded in 1961 to stimulate economic progress and world trade.
- **FDI:** A foreign direct investment (FDI) is an investment in the form of a controlling ownership in a business in one country by an entity based in another country. It is thus distinguished from a foreign portfolio investment by a notion of direct control.

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- **American Honda Foundation**: It supports programmes designed to promote youth education.
- **The EFA Global Monitoring Report:** Developed by an independent team and published by UNESCO, the EFA Global Monitoring Report aims to sustain commitment towards Education for All.

4.8 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. How has education sector in India transformed into a 'sector in its own right'?
2. How does higher education contribute to the national development?
3. What are the major initiatives taken by the Government of India to boost higher education in India?
4. Write a short note on the rise of Private Financing in tertiary education in India.
5. Mention the role of various grants and aids for primary/secondary teachers and schools.

Long-Answer Questions

1. Discuss the issue of resources and government funding to expand and modernize India's education sector.
2. Bring out a comparative analysis of investment in education sector in India and its neighbouring countries.
3. What India needs to do to bridge the gap between the demand and supply in higher education?
4. Discuss how intellectual resources play a key role in knowledge-based society.
5. Analyze the main attributes of education infrastructure.

4.9 FURTHER READINGS

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BLOCK - II
QUALITY MANAGEMENT, MASS MEDIA AND CONTINUING EDUCATION

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UNIT 5 QUALITY MANAGEMENT

Structure

5.0 INTRODUCTION

Excellence, in the common parlance, refers to 'the quality of being outstanding or extremely good.' Every individual or institution can strive to achieve excellence and set a benchmark for others. In a vast but competitive field of education where stakes are high for individual learners, institutions, teachers, investors (both public and private entities), policy makers and planers, etc. serious attempts are being made to ensure that outcomes of learning bring about qualitative change in society. In recent times, various institutes, especially those which are involved in higher education and award certification and degrees in professional course, have been investing heavily to maintain a certain standards that could match with the institutes of international repute. To start with, teachers and administrators make it sure to set standards and codes of conduct for students to improve the value and quality of education.

When several institutions make claims of enhancing students' learning, and providing an experience of high quality through the excellence in teaching and learning, it speaks volumes about the perception and potential of excellence. Scholars and academics have developed various perspectives and approaches to analyze patterns of excellence in teaching and learning. There are numerous criteria that need to be taken into account to achieve excellence. To achieve excellence and match with the global demand in higher education, educational standards must

continually evolve to meet the challenges that appear due to the latest developments in technology and research. For public authorities, standards (ISO, etc.) are used as efficient and cost-effective tools in the implementation of public policies and initiatives in various fields.

In addition to analyzing the concept and scope of excellence in education, this unit discusses various approaches to bring about standards of excellence in academic institutions and gives an insight into standardizations like ISO.

5.1 OBJECTIVES

After going through this unit, you will be able to:

- Analyze the need for excellence in standard of education
- Discuss how to bring about matching global standards
- Understand top-down and bottom-up approaches
- Discuss the significance of ISO standardization to maintain quality

5.2 NEED FOR EXCELLENCE IN STANDARD OF EDUCATION

Education provides essence and nourishment for human development. Process of education begins at an early age and continues till end. Education is a source of great strength in everyone's life. Our sustenance in society depends on education. It develops a platform through which we get opportunities to prove ourselves before society. In the initial phase we have to put lot of efforts to establish and make our identification in the society. Later we are recognized by society for our worthiness. Good education is a great means of empowerment which is required for accomplishing specific objectives.

In today's world, 'illusion' is the main problem which is affecting the youths. Our young generation is very eager to accept new things without understanding the truth and its affects their own life. Sometimes this leads to depression among youth. They keep on ignoring their responsibilities and duties which leads to inability to develop personal views and opinions towards excellence. Here, education only guides us in forming our own opinions and views and prevents us from getting affected by mere illusions and others' opinions.

To improve the value and quality of education, educational leaders need to set standards and codes of conduct for students to follow. Discipline is the most important key to education; it is the value of all values in attaining education. Without proper discipline no one can achieve excellence in education.

Excellence can be both a description of current provision and also a goal or aspiration for institutions, academics and students. A common understanding of

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the term is as a mark of distinction, describing something that is exceptional, meritocratic, outstanding and exceeding normal expectations. It is a form of commendation commonly linked to the reputation of institutions and to the achievements of students. If some provision is recognized as excellent, it implies that the majority of other providers are simply satisfying standards. The concept has no meaning if all are excellent and there is no way of distinguishing the performance of individual institutions and departments. However, not all would subscribe to this elite view of excellence. It can be seen as both a relative and an absolute concept. All students may have the opportunity to strive for excellence in what they do and the achievement of excellence may be measured in terms of added value and personal development. Here we will be discussing different perspectives on excellence, each of which reflects different aspects of the concept, but all identify the potential significance of excellence in setting the parameters for academic quality and standards.

At institutional level, the term excellence is also being used in an aspirational sense, bound up with claims of enhancing students' learning, and providing an experience of high quality through the promotion of excellence in teaching and learning. However, exploring both the staff and students' perceptions on excellence, Percy and Salter argued that although the development of excellence may be the standard of success in higher education courses, teaching staff think that they can do nothing to develop excellence in a student if there is no potential at all. The staff saw around them many unmotivated, average, and definitely non-excellent students. While for the staff, higher education is largely a learning situation and that the essence lies in the student learning, for many students, higher education seems to be perceived as a teaching situation: if the teaching is not good then little can be done to redeem it. This led to a tension that seems to persist today. Institutions are encouraged both to strive to become excellent knowledge production sites (the traditional research function) and to give access to such knowledge to an increasingly diverse range of learners (the teaching and learning functions).

In order to overcome this tension, some patterns of excellence in teaching and learning were pointed out by Gibbs. These are:

- A focus on the student, student learning and personal support, rather than on formal teaching;
- A macro focus on the wider learning environment and on the development of the curriculum or programme, rather than a micro focus on teaching;
- A traditional focus on the teachers themselves, and student feedback ratings of the teacher, on the teachers' research record and subject knowledge, and on external recognition of the teacher, with little focus on students, on the learning environment or on the process of developing teaching;
- An emphasis on efforts to develop teaching, especially through innovation, through influencing others and through leadership of teaching;

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- An emphasis on the 'scholarship of teaching', as a particularly high valued form of the development of teaching;
- At a system level, excellence is being used in a performative sense – increasing the efficiency of Higher education systems and using teaching and learning to meet national economic goals.

A criterion-referenced approach to excellence implies that there are standards which are commonly acknowledged and which are appropriate for all institutions. Some institutions may have strengths in some specific areas and may have courses and programmes which display the characteristics of excellence, but to achieve the status of excellence, institutions, in general, would be expected to demonstrate good practice in a range of different areas.

The following are intended as a guide to the recognition of excellence rather than a 'check list' of necessary conditions. An institution (or department, or programme team) that makes a claim to be excellent would be expected to provide evidence that it meets the following criteria:

- **Robust and progressive strategic governance and management**: Institutions may be expected to demonstrate a strong commitment to excellence in institutional mission and purpose. Strategic direction influences decisions on planning and resourcing as well as setting the ethos and style of institutional practice. Both executive management teams and governing bodies would be expected to set and support goals for the institution which promote excellence. One of the characteristics of an excellent institution is the self-knowledge of strengths and weaknesses and the willingness to improve. Excellent institutions demonstrate a determination to strive for the highest standards of achievement.
- **High standards of academic achievement**: A key measure of the success of institutions is the academic performance of students and staff in degree studies and research. An institution's reputation is determined by the achievements of its students and staff. Students should demonstrate key skills including intellectual ability and practical competence. Excellent students will be motivated, independent and focused in their studies, and able to apply their knowledge in practical situations. The measurement of achievement involves the award of qualifications and records of student performance. For self-accrediting institutions it may be difficult to establish absolute measures of success that apply across the higher education sector, but external verification and the requirements of professional bodies may help to assess the relative performance of institutions.
- **A strong track record in student destinations**: Another way of assessing the performance of institutions is to consider the success of students in securing employment and pursuing career opportunities or further study. Well-trained graduates might expect to do well in labour markets and succeed in professional occupations. In these terms, excellence is seen as achievement

in preparing students for the world of work, rather than reflecting purely academic goals, but it is an objective that often fits well with the expectations of governments and employers.

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- **An exceptional student experience**: Excellence can be claimed for high quality teaching and learning, and student support, including learning resources. Traditionally, excellence in teaching has not been widely regarded and has not achieved the same degree of esteem afforded to research. However, many institutions have developed a focus on pedagogy and have developed innovative ways of enhancing the learning experience of students. The 'process' of education is recognized as the most significant factor in determining educational gain by students'
- **Positive stakeholder satisfaction**: The concept of excellence is linked to the perceived performance of institutions, evaluated through feedback from stakeholders. This will include a wide range of different employers, and other users of research outcomes and knowledge transfer. A high performing institution is one where students fully meet the expectations of employers and other interested parties and where institutions are focused on the needs and expectations of stakeholders.
- **High levels of student satisfaction**: An important group of stakeholders are the students themselves. Excellence can be viewed in terms of the service provided to students and their satisfaction with the quality of their learning experience. Many institutions conduct student satisfaction surveys or exit surveys of students on completion of their studies. Some countries conduct national surveys of all higher education providers to judge the level of student satisfaction
- **Commitment to research and academic development**: An excellent institution would be expected to demonstrate evidence of a well-found, vibrant academic community involving academic staff, researchers and students. The quantity and quality of research output would be one important measure of research activity, but it is also important to take into consideration the extent to which academic staff is engaged in their academic discipline through individual studies and participation in the wider subject community. It is expected that staff are knowledgeable and participating in wider academic debate.
- **Support for social, economic and cultural development**: One function of institutions is to promote and sustain social, economic and cultural development, meeting the needs of the local and regional community and fulfilling their missions through curriculum development, applied research, knowledge transfer and social welfare. Higher education institutions are recognized as a 'social good' fostering intellectual development, technical skills and promoting the values of equity, inclusion and citizenship. An indicator of excellence is the extent

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to which institutions are integrated into their regional systems and play a central role in the life of communities.

- **Recognition of the social benefit of education**: A key function of higher education is to foster the values of a civilized society and to promote social mobility and social justice. An excellent institution will demonstrate commitment to social and cultural inclusion and to widening participation in higher education to all who have the ability and motivation to benefit from the experience.
- **Commitment to internationalization**: Excellent institutions will promote a global perspective as part of their mission and purpose to recognize the importance of competing on a world stage and engaging in the development of an international knowledge economy. Institutions should benchmark their performance against comparable institutions in other countries and take part in international cooperation in research and academic development.
- **Promotion of equity and academic freedom**: The essential feature of higher education is the commitment to the value of objective enquiry and to the pursuit of knowledge, without the restraint of political determination or other forms of intervention. Institutions should safeguard the equality of opportunity and regard for individual expression. All students should be encouraged to achieve and fulfil their full potential.

These criteria should reflect the characteristics of an excellent institution. It is not an exhaustive list. There are many other ways in which institutions and academic disciplines may define their purpose and personality, but hopefully these features give a sense of what an excellent institution might look like.

Check Your Progress

1. How the term 'excellence' is used at institutional level?
2. List some of the criteria that institutions should provide before they claim to be excellent.

5.3 MATCHING GLOBAL STANDARDS: CHALLENGES AND STRATEGIES

If we look back at how education has changed since the first industrial revolution, we might better understand the challenges for students and teachers today. In 1780, there was little to no expectation that children would have any education whatsoever. People learned a trade, typically with on the job apprentice training. Where it existed, education was a luxury for the rich. Later, when the second revolution occurred, industry needed skilled workers, who needed to be literate in order to be valuable in the workforce. Suddenly, an education was needed. And

this education system, founded on the needs of the second industrial revolution, is in many ways still in place today.

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Based on earlier life learning models, schools taught knowledge. Students came in with no knowledge, the teacher fed them information in specific subjects and at the end, the student was tested to evaluate if they remembered what they were taught. This fostered a rigid framework of study disciplines, education standards and eventually standardized testing. A production line!

The introduction of the computer did not change the underlying ethos behind our education system. Instead, education professionals simply took advantage of the technology and replaced teachers with computers, enabling teaching, learning and assessment to be handled by machine. While long distance learning and a vast amount of information is now accessible thanks to the Internet revolution, the structure of our education system has still been left unchallenged. Learning outcomes are still being tested by the criteria set out in the second industrial revolution. We are still treating educators and students like they are part of a production line.

In order to change this, we must revisit the educational paradigms, and focus on the areas that need rethinking. In today's new world of fast changing technology and information overload, students need to be trained and not taught. Information needs to be made accessible and students need to learn how to find it rather than the teacher offering it to them in a rigid structure. We now understand that students are not alike, do not have the same starting point, can learn and absorb different areas of focus differently and need to be guided to develop their skills rather than taught a set of predefined data points. Education needs to align with industry and prepare students for the next industrial revolution which will happen in their lifetime.

It's time to bring education into the 21st Century. Flexible, tailor-made curricula, taught by teachers who become mentors to their students, and treat them as individuals, is the least that today's schools deserve. Giving the workforce of tomorrow the tools to become active lifelong learners can create a diverse and pluralistic society where every person understands and plays to their strengths, building a fair and self-sustaining model for education rather than knowledge.

In today's global, knowledge-based economy, educational achievement is an increasingly important factor.

To better prepare students for this success, states should develop and set educational standards to define the measurable learning objectives and skills that students need for higher education and the demands of 21st-century jobs. These educational standards must continually evolve to address the latest developments in technology, new pedagogical research and evolving student learning styles.

5.3.1 Global Standards for Excellence

Standards for excellence can be found in the literature. A survey in Romania, under the framework of an EU funded program, showed that in the United States,

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one group of standards refer to the institutional context and another group of standards to educational efficiency. The first group of standards looks at: mission and objectives of the institution; planning methods, allocation of resources and innovation; leadership and governance; administration; integrity; self-evaluation and external evaluation. If properly met, this group of standards, would set the "obligatory (but not sufficient)" conditions under which the institution would be "eligible" to be considered as "excellent". The second group of standards examines the educational efficiency and is thus directly related to the educational activities and other services the institution offers its students: admission of students and their performance, including graduation rates; support services for students; quality of curricula and faculty; quality of educational offerings, including academic content, coherence, learning objectives, expected learning outcomes and expected skills of graduates; general education learning outcomes, including communication skills, critical thinking, technological skills, etc.; evaluation of achieved learning outcomes of students; and other standards related to study programmes.

A study of the World Bank, led by Jamil Salmi, lists, in a given order of importance, the external and internal conditions that, if met, lead to proper functioning of an educational system: equity, teaching, achieving the expected learning outcomes, research, knowledge or technology transfer to society and the acceptance of a set of values.

Check Your Progress

3. Why is it important to set educational standards?
4. How does the available literature explain the discussion about standards of excellence in education?

5.4 TOP-DOWN AND BOTTOM-UP APPROACHES

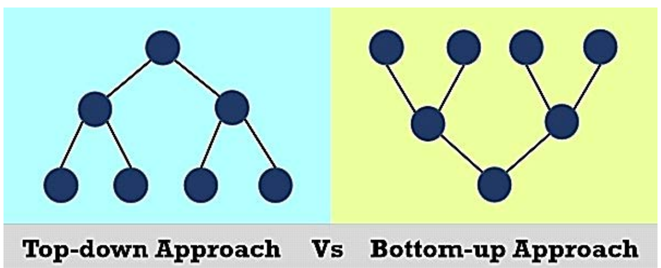
Top-down and bottom-up are both strategies of information processing and knowledge ordering, used in a variety of fields including software, humanistic and scientific theories (see systemic), and management and organization. In practice, they can be seen as a style of thinking, teaching, or leadership.

A top-down approach (also known as *stepwise design* and in some cases used as a synonym of *decomposition*) is essentially the breaking down of a system to gain insight into its compositional subsystems in a reverse engineering fashion. In a top-down approach, an overview of the system is formulated, specifying, but not detailing, any first-level subsystems. Each subsystem is then refined in yet greater detail, sometimes in many additional subsystem levels, until the entire specification is reduced to base elements. A top-down model is often specified with the assistance of "black boxes", which makes it easier to manipulate. However, black boxes may fail to clarify elementary mechanisms or be detailed enough to

realistically validate the model. Top down approach starts with the big picture. It breaks down from there into smaller segments.

A bottom-up approach is the piecing together of systems to give rise to more complex systems, thus making the original systems sub-systems of the emergent system. Bottom-up processing is a type of information processing based on incoming data from the environment to form a perception. From a cognitive psychology perspective, information enters the eyes in one direction (sensory input, or the "bottom"), and is then turned into an image by the brain that can be interpreted and recognized as a perception (output that is "built up" from processing to final cognition). In a bottom-up approach, the individual base elements of the system are first specified in great detail. These elements are then linked together to form larger subsystems, which then in turn are linked, sometimes in many levels, until a complete top-level system is formed. This strategy often resembles a "seed" model, by which the beginnings are small but eventually grow in complexity and completeness. However, "organic strategies" may result in a tangle of elements and subsystems, developed in isolation and subject to local optimization as opposed to meeting a global purpose.

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Comparison Chart

BASIS FOR COMPARISON	TOP-DOWN APPROACH	BOTTOM-UP APPROACH
Basic	Breaks the massive problem into smaller sub-problems.	Solves the fundamental low-level problem and integrates them into a larger one.
Process	Submodules are solitarily analyzed.	Examine what data is to be encapsulated, and implies the concept of information hiding.
Communication	Not required in the top-down approach.	Needs a specific amount of communication.
Redundancy	Contain redundant information.	Redundancy can be eliminated.
Programming languages	Structure/procedural oriented programming languages (i.e. C) follows the top-down approach.	Object-oriented programming languages (like C++, Java, etc.) follows the bottom-up approach.
Mainly used in	Module documentation, test case creation, code implementation and debugging.	Testing

In the fields of management and organization, the terms "top-down" and "bottom-up" are used to describe how decisions are made and/or how change is implemented.

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A top-down approach is where an executive decision maker or other top person makes the decisions of how something should be done. This approach is disseminated under their authority to lower levels in the hierarchy, who are, to a greater or lesser extent, bound by them. For example, when wanting to make an improvement in a hospital, a hospital administrator might decide that a major change (such as implementing a new program) is needed, and then the leader uses a planned approach to drive the changes down to the frontline staff (Stewart, Manges, Ward, 2015).

A bottom-up approach is one that works from the grassroots—from a large number of people working together, causing a decision to arise from their joint involvement. A decision by a number of activists, students, or victims of some incident to take action is a bottom-up decision. A bottom-up approach can be thought of as "an incremental change approach that represents an emergent process cultivated and upheld primarily by frontline workers" (Stewart, Manges, Ward, 2015, p. 241).

Positive aspects of top-down approaches include their efficiency and superb overview of higher levels. Also, external effects can be internalized. On the negative side, if reforms are perceived to be imposed 'from above', it can be difficult for lower levels to accept them (e.g. Bresser-Pereira, Maravall, and Przeworski 1993). Evidence suggests this to be true regardless of the content of reforms (e.g. Dubois 2002). A bottom-up approach allows for more experimentation and a better feeling for what is needed at the bottom. Other evidence suggests that there is a third combination approach to change (see Stewart, Manges, Ward, 2015).

Check Your Progress

5. What does a top-down approach mean in the fields of software?
6. Mention the meaning of a bottom-up approach in the fields of management and organization.

5.5 ISO STANDARDS AND SWOT ANALYSIS

Standards are considered efficient and cost-effective tools that can support the implementation of public policy in a large variety of fields. They offer public authorities advantages such as:

- Help in supporting cooperation and potential harmonization (especially at international level) of public policy in the fields concerned
- Immediate access to a large portfolio of documents providing sound technical knowledge formalized by recognized experts in a broad variety of fields,

based on consensus from a balance of interests reflecting technological, economic and public interest conditions

- The opportunity to develop technical solutions addressing requirements and priorities set by public authorities, involving all the concerned parties in an open, transparent and efficient process.

Standards are also considered an element of good public governance; the OECD good regulatory practice (2012) makes explicit reference to standards in relation to: Regulatory Impact Assessment (RIA) ("…Ex ante assessment should in most cases identify approaches likely to deliver the greatest net benefit to society, including complementary approaches such as through a combination of regulation, education and voluntary standard") and to the planning of regulations ("in developing regulatory measures, give consideration to all relevant international standards and frameworks for co-operation in the same field and, where appropriate, their likely effects on parties outside the jurisdiction").

5.5.1 Need for Standardization in Education

Because it is a powerful way to communicate, in a structured manner and at different levels, that standards can truly help to improve people's lives and the society as a whole, and to make consumers more responsible and conscious about quality, environmental and social issues.

Before 2005, when the "European Standards and Guidelines for Quality Assurance in Higher Education" was adopted in Bergen, the only reference point in the domain of quality in higher education was considered the ISO 9001 standard. This was generically applied to all quality management systems, regardless of the activities carried out in an organization. This offers general principles and requirements leading to the coordination of activities aimed at orienting and controlling an organization in terms of quality. By implementing a quality management system in a university, its capacity to meet objectives in one domain could be assessed; however, the quality of educational services provided in the higher education institution and its capacity to attain the quality level specific to the academic environment could not be assessed.

In order to help education institutions, the ISO IWA 2 standard appeared in 2003: *"Quality Management Systems. Guideline for the Application of ISO 9001:2000 in Education"* (revised in 2007), adopted as a Romanian standard in 2006. It did not add anything to, did not replace or modify the requirements of ISO 9001: 2000; it was conceived with a view to allowing a clear understanding of the ISO 9001:2000 and ISO 9004:2000 standards' requirements and of the way in which they are implemented in the education area. The reason for adopting this international agreement relies on the fact that education curricula and syllabuses provide subjects to be taught, their short description, such as the assessment method; however, they supply no information about the extent to which they meet the recipients' needs and expectations, in case there is any dysfunctional activity in the educational processes.

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The arguments the standard supplies for the implementation of this system in education rely on the following advantages:

- The continuous assessment of the curricula and of educational processes which support training (required by ISO 9001) can ensure the learning process' efficiency;
- Internal quality audits guarantee the fact that requirements are fulfilled (proof of the declared achievements), thus supporting the assessment of human performance;
- The implementation of the quality management system is paid once, while its advantages continue indefinitely.

The principles of the quality management system depend on the domain of educational services (not only in higher education), to which other four specific principles are added, all facilitating success: creating learner value, focusing on social value, agility and autonomy. The quality management system in education must be understood by also taking into account the curriculum, the learning processes system, the organizational structure, the responsibilities, processes and resources that ensure the quality of all activities carried out in education, not only those strictly connected to the teaching act.

According to this standard, the educational organizations should define the processes for quality management system, processes related to their aim, following the provision of the educational services: education design, curriculum development, education delivery and assessment of learning. A list of the processes is provided in the appendix of the standard, so that, according to the provisions of a quality management system, the standard can be applied. Naturally, in this quality management standard in higher education institutions, the requirements of a quality assurance system can be found, as part of the quality management system

It is beyond doubt that the ISO standards have their impact on various spheres of the economy. Within the specific domain where they are implemented and applied, these ISO management system standards enable organizations in their overall development and proficiency. No doubt, there are different benefits of getting an ISO certification, as per the scope of business activity, and span of operation.

We all know that Human Resource management is the backbone of any organization. ISO has recently released the world's first ever Standard for the Human Resource Management, i.e. the ISO 30414, in order to inculcate best HR management practices.

But what is there at the core of an efficient Human Resource? Of course, its efficient education system. With a view to putting emphasis on the good education system, ISO has introduced the global standard for educational organizations, i.e. ISO 21001:2018.

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ISO 21001:2018 is a global benchmark introduced by International Organization for Standardization (ISO), which specifies the requirements for an effective educational organizations management system (EOMS). The requirements of good EOMS are very precise and clear. For an educational organization to attain a desirable EOMS, it needs to do the following:

- As a basic requirement of ISO 21001:2018, an educational organization must focus on using a curriculum that enables the development of proficiency by the way of teaching, learning or research, irrespective of the nature, scale or procedure of implementation.
- Demonstrate its potential to work on the gradual development of proficiency by the way of teaching, training, learning, and research.
- Enhance the satisfaction of the learners, i.e. the pupils and other beneficiaries. This is very much similar to ISO certification 9001 that focuses on client satisfaction. Hence, this is compatible with ISO 9001.

The ISO certification for educational organizations is relevant as:

- There is a critical and constant need in educational organizations such as schools, colleges, universities, institutes, training centers, and research organizations for evaluation of their procedures to meet the requirements of learners.
- Moreover, other relevant stakeholders such as educational authorities also need this ISO standard to improve their ability to implement the desired EOMS within their domain.

Whether ISO 21001:2018 is applicable only to educational organizations?

No, the ISO 21001:2018 is relevant in educational organizations existing within big corporations as well, where core business activity is not education and is instead professional training development.

Where is ISO 21001:2018 not applicable?

ISO 21001:2018 EOMS standard does not apply to the organizations that are involved in only the production or manufacturing educational products such as stationery manufacturers, book publication houses, booksellers, and printing presses.

With that, it's quite clear how relevant is ISO 21001:2018 for development of processes for improvement of the educational system and ensuring fulfillment of the requirements of learners and trainees.

Check Your Progress

7. What advantages do standards offer to the public authorities?
8. What is ISO 21001:2018? What steps educational organization need to take to attain a desirable EOMS?

5.6 ANSWERS TO CHECK YOUR PROGRESS QUESTIONS

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1. At institutional level, the term excellence is also being used in an aspirational sense, bound up with claims of enhancing students' learning, and providing an experience of high quality through the promotion of excellence in teaching and learning. However, exploring both the staff and students' perceptions on excellence, Percy and Salter argued that although the development of excellence may be the standard of success in higher education courses, teaching staff think that they can do nothing to develop excellence in a student if there is no potential at all. The staff saw around them many unmotivated, average, and definitely non-excellent students. While for the staff, higher education is largely a learning situation and that the essence lies in the student learning, for many students, higher education seems to be perceived as a teaching situation: if the teaching is not good then little can be done to redeem it. This led to a tension that seems to persist today.
2. Some of these criteria that an institution should meet to make a claim to be excellent are:
   - Robust and progressive strategic governance and management
   - High standards of academic achievement
   - A strong track record in student destinations
   - High levels of student satisfaction
   - Commitment to research and academic development
3. In today's global, knowledge-based economy, educational achievement is an increasingly important factor. To better prepare students for this success, states should develop and set educational standards to define the measurable learning objectives and skills that students need for higher education and the demands of 21st-century jobs. These educational standards must continually evolve to address the latest developments in technology, new pedagogical research and evolving student learning styles.
4. Standards for excellence can be found in the literature. A survey in Romania, under the framework of an EU funded program, showed that in the United States, one group of standards refer to the institutional context and another group of standards to educational efficiency. The first group of standards looks at: mission and objectives of the institution; planning methods, allocation of resources and innovation; leadership and governance; administration; integrity; self-evaluation and external evaluation. If properly met, this group of standards, would set the "obligatory (but not sufficient)" conditions under which the institution would be "eligible" to be considered as "excellent". The second group of standards examines the educational efficiency and is thus directly related to the educational activities and other services the institution offers its students.

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5. A top-down approach (also known as *stepwise design* and in some cases used as a synonym of *decomposition*) is essentially the breaking down of a system to gain insight into its compositional subsystems in a reverse engineering fashion. In a top-down approach, an overview of the system is formulated, specifying, but not detailing, any first-level subsystems. Each subsystem is then refined in yet greater detail, sometimes in many additional subsystem levels, until the entire specification is reduced to base elements. A top-down model is often specified with the assistance of "black boxes", which makes it easier to manipulate. However, black boxes may fail to clarify elementary mechanisms or be detailed enough to realistically validate the model. Top down approach starts with the big picture. It breaks down from there into smaller segments.
6. A bottom-up approach is one that works from the grassroots—from a large number of people working together, causing a decision to arise from their joint involvement. A decision by a number of activists, students, or victims of some incident to take action is a bottom-up decision. A bottom-up approach can be thought of as "an incremental change approach that represents an emergent process cultivated and upheld primarily by frontline workers."
7. Standards offer public authorities advantages such as:
   - Help in supporting cooperation and potential harmonization (especially at international level) of public policy in the fields concerned
   - Immediate access to a large portfolio of documents providing sound technical knowledge formalized by recognized experts in a broad variety of fields, based on consensus from a balance of interests reflecting technological, economic and public interest conditions
   - The opportunity to develop technical solutions addressing requirements and priorities set by public authorities, involving all the concerned parties in an open, transparent and efficient process.
8. ISO 21001:2018 is a global benchmark introduced by International Organization for Standardization (ISO), which specifies the requirements for an effective educational organizations management system (EOMS). The requirements of good EOMS are very precise and clear. For an educational organization to attain a desirable EOMS, it needs to do the following:
   - As a basic requirement of ISO 21001:2018, an educational organization must focus on using a curriculum that enables the development of proficiency by the way of teaching, learning or research, irrespective of the nature, scale or procedure of implementation.
   - Demonstrate its potential to work on the gradual development of proficiency by the way of teaching, training, learning, and research.

- Enhance the satisfaction of the learners, i.e. the pupils and other beneficiaries. This is very much similar to ISO certification 9001 that focuses on client satisfaction. Hence, this is compatible with ISO 9001

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5.7 SUMMARY

- To improve the value and quality of education, educational leaders need to set standards and codes of conduct for students to follow. Discipline is the most important key to education; it is the value of all values in attaining education.
- Institutions are encouraged both to strive to become excellent knowledge production sites (the traditional research function) and to give access to such knowledge to an increasingly diverse range of learners (the teaching and learning functions).
- Institutions may be expected to demonstrate a strong commitment to excellence in institutional mission and purpose.
- An excellent institution would be expected to demonstrate evidence of a well-found, vibrant academic community involving academic staff, researchers and students.
- Excellent institutions will promote a global perspective as part of their mission and purpose to recognize the importance of competing on a world stage and engaging in the development of an international knowledge economy.
- While long distance learning and a vast amount of information is now accessible thanks to the Internet revolution, the structure of our education system has still been left unchallenged.
- Education needs to align with industry and prepare students for the next industrial revolution which will happen in their lifetime.
- Standards for excellence can be found in the literature. A survey in Romania, under the framework of an EU funded program, showed that in the United States, one group of standards refer to the institutional context and another group of standards to educational efficiency.
- A bottom-up approach is the piecing together of systems to give rise to more complex systems, thus making the original systems sub-systems of the emergent system. Bottom-up processing is a type of information processing based on incoming data from the environment to form a perception.
- A top-down approach is where an executive decision maker or other top person makes the decisions of how something should be done. This approach is disseminated under their authority to lower levels in the hierarchy.
- Positive aspects of top-down approaches include their efficiency and superb overview of higher levels. Also, external effects can be internalized.

- A bottom-up approach allows for more experimentation and a better feeling for what is needed at the bottom. Other evidence suggests that there is a third combination approach to change.
- In order to help education institutions, the ISO IWA 2 standard appeared in 2003: "Quality Management Systems. Guideline for the Application of ISO 9001:2000 in Education" (revised in 2007), adopted as a Romanian standard in 2006.
- The principles of the quality management system depend on the domain of educational services (not only in higher education), to which other four specific principles are added, all facilitating success: creating learner value, focusing on social value, agility and autonomy.
- It is beyond doubt that the ISO standards have their impact on various spheres of the economy. Within the specific domain where they are implemented and applied, these ISO management system standards enable organizations in their overall development and proficiency.
- We all know that Human Resource management is the backbone of any organization. ISO has recently released the world's first ever Standard for the Human Resource Management, i.e. the ISO 30414, in order to inculcate best HR management practices.
- The ISO 21001:2018 is relevant in educational organizations existing within big corporations as well, where core business activity is not education and is instead professional training development.
- ISO 21001:2018 EOMS standard does not apply to the organizations that are involved in only the production or manufacturing educational products such as stationery manufacturers, book publication houses, booksellers, and printing presses.

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5.8 KEY WORDS

- **Criterion-referenced approach:** It is designed to measure student performance against a fixed set of predetermined criteria or learning standards.
- **A bottom-up approach:** It is the piecing together of systems to give rise to more complex systems, thus making the original systems sub-systems of the emergent system.
- **The top-down approach:** It relies on higher authority figures to determine larger goals that will filter down to the tasks of lower level employees.
- **ISO 9001:2000:** This is a company level certification based on a standard developed and published by the International Organization for Standardization (ISO) titled "Quality Management Systems-Requirements."
- **ISO 21001:2018**: It specifies requirements for a management system for educational organizations (EOMS).

5.9 SELF-ASSESSMENT QUESTIONS AND EXERCISES

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Short-Answer Questions

1. State the concept and meaning of excellence.
2. What are the patterns of excellence in teaching and learning as envisaged by Gibbs?
3. How do institutions judge the level of student satisfaction?
4. What is the difference between top-down and bottom-up approaches in the field of management?
5. Briefly mention the role of ISO standards in educational organizations.

Long-Answer Questions

1. Discuss the various perspectives on excellence.
2. What challenges and strategies do institutions face in matching global standards?
3. Analyze the positive aspects of top-down approaches.
4. Discuss the role of ISO standards in the quality management system in education.

5.10 FURTHER READINGS

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UNIT 6 RELATIONS MANAGEMENT AND SYSTEMS ORIENTATION

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Structure

6.0 INTRODUCTION

In the development and planning of education, universities and institutions have developed their own relations management by bringing in both internal and external communication. While the function and role of internal relations are to establish relationships with the academic staff, the higher education management and the current students, purpose of external relations to send messages to market and prospective students and often functions as the part of their public relations exercise. Although there are some common tools which are used in both relations, communication in internal relations often turns into a multidimensional construction as it comprises elements such as complex rules, values, the internal climate and objectives. Internal relations emphasizes on motivating and retaining staff and manpower as they are the cornerstone of academic success. External relations plays a decisive role in building and strengthening institution's image among the target audience which includes new students.

Managing tranquillity or peace in the campus is essential to maintain the integrity and academic excellence as nothing can prosper if the atmosphere is dreadful and violent. Institutions involved in education need to ensure that there is no violence in individual and at institutional levels and every stakeholder is pursuing their responsibilities without any external pressures. It is also essential that all stakeholders participate in the management of institutions. Students need to be involved in extracurricular activities and stress should be given to involve them in

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extension services and outreach programmes of institutions to establish social bonding with society. There is no denying the fact that education plays an integral part every individual, family and society. Also in educational management, it is important to understand the concepts of management.

In addition to discussing internal and external relations, this unit also explains the role of education and concepts of management in educational institutions.

6.1 OBJECTIVES

After going through this unit, you will be able to:

- Understand campus tranquillity management
- Recognise the significance of extracurricular activities for institution
- Learn about social bonding extension services and outreach programmes
- Explain education as an integral part of every individual, family and society
- Analyse the concepts of management

6.2 INTERNAL AND EXTERNAL RELATIONS

Over the last years, universities have greatly developed their communication system by massively employing modern technologies in order to meet the ever evolving knowledge needs on the market, mainly because "fulfilling their mission and objectives largely depends on achieving communication objectives". (Popescu I.C., 2002). As a result, at internal level, communication supposes establishing some optimal communication relationships with the academic staff, the higher education management but also with the current students. The external communication is done by sending messages to the market and the potential students, by collaborating with different institutions and organizations and it also consists of the university's aggregate of public relations.

The process of communication represents an essential element: the internal communication has the purpose of informing employees about the organization, while the external one sends messages to different audience categories which are outside the organization. (Tourani A. and Rast S., 2012) Communication can only take place when there is a free exchange of information regardless of the means used for it. (Ramachandran, M. T. 2010).

The communication process is the link between the university and the various audience categories. The internal communication takes place mostly with the academic staff and the current students. This does not really differ from the external communication as it comprises a series of tools which are also used by the latter. The internal communication involves various elements such as complex rules, values, the internal climate and objectives, and thus the communication message turns into a multidimensional construction. (Ashfaq M., et al. 2012). Several specialized

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literature and authors researched the problem of employees' performance by taking into consideration the communication with them. Moghimi et al (2013) think that the improvement of employee performance is the most important aspect of internal communication. At the same time, they identify several important aspects of communication:

- gaining communication skills,
- developing management skills,
- self-openness – which involves information about one's self,
- empathy - the capacity to relate to someone else's experience,
- offering support by efficient communication with the others,
- positivism,
- social skills - the ability to communicate with the rest,
- influence and inspiration - through thoughts and ideas,
- intellectual stimulation - activities which promote individual and collective initiative and creativity

All of these help in developing thus a model for the influence of communication skills on employee performance.

Neves P. and Eisenberger R. (2012) analysed the impact of the management communication process on employee performance, and Tsai M. et al (2009) identified that direct communication between employees and managers leads to an improvement of work relations and organizational performance. It follows that an efficient internal communication is the foundation of success of any company, and in higher education institutions this is of great importance as the academic staff is the one directly interacting with different audience categories, especially with students, who are the main consumers of higher education services. The personnel promote externally the image of the university they represent. "The most important objective of the communication policy is building and strengthening a positive image among the target audience, while the concept of image is organically bound to the one of communication." (Popescu I.C., 2002).

The internal communication process largely contributes to motivating and retaining employees as "the employees, regardless of the field of activity, are considered to be the foundation of society", (Ashfaq M., et al, 2012). Therefore, in higher education they are the cornerstone of academic success, as the quality of the education process and the scientific research depend on them. The external communication in higher education involves a larger audience because it comprises all the messages the higher education institution sends externally and to the environment it operates in. Communication with the stakeholders involved in higher education represents a major step in establishing competitive advantages by identifying their needs and finding the necessary means to satisfy them. (Mainardes E.V. et al, 2010).

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6.2.1 Campus Tranquility Management

Tranquility is a sense of peace. It is the feeling you have while sitting under a starry sky, listening to the crickets. The aura of tranquility comes from the calm in the world, which makes you feel you are without a care in the world. Its roots are in the Latin word 'trans' meaning "exceedingly" and quiet meaning "rest". Tranquil means calm, and something that is exceedingly quiet or restful — a sunset or a rocking chair in the shade — can give you a sense of tranquility or peacefulness.

Peace, as a concept is primarily concerned with the creation and maintenance of a just order in society. Miall (2000) conceived of peace as the absence of war, respect and tolerance between people in the society. In other words, there should be harmony, tranquility or wholeness in the organization of a system. In the sphere of institutional management, Galtung (1990/1996) classified peace into negative and positive aspects. According to the study, when peace is said to be negative, it means that the peace in existence include the absence of crisis, strikes, war, fear and direct violence in individual and at institutional levels. On the other hand when peace is positive, it means that there is peace in existence, and it indicates absence of unjust structure, unequal relationship, justice and inner peace at the individual and societal levels. This is the real or complete peace since it includes both the absence of war (direct violence) and absence of unjust structures (indirect violence).

Peace, in whatever form, level or environment it operates, is significant, in that, peace is the greatest factor facilitating institutional management towards sustenance of performance. This is because crisis time always witnesses little or no investment in education sector since academic performance of students in particular does not appear to be as good as it is expected to be. This has given rise to uncomplimentary remarks from parents and other stakeholders on the academic performance of tertiary institution students. Nwagwu (2004) observed from the performances of our educational institutions that lack of peace causes instability and breeds general dissatisfaction, unimpressive attitude towards academic work, viewed in terms of educational cost as a result of unconducive learning environment. One can equate crisis or lack of peace period in education to what could be regarded as educational holocaust (almost complete annihilation of the school system). Crisis of any type in tertiary institutions need to be properly addressed from the level of family, through the school system up to tertiary educational system, if academic performance must be enhanced.

Perpetrators of violence, according to Denga (2008), should be taught and persuaded to seek peace and dialogue towards promoting progress and academic development. Issues of students/staff unrest, unionism, land disputes, politics and other forms of conflict can be counterproductive in the education management process. This situation has often resulted in frustration of the students, parents and the system, in addition to making the education system inefficient. Although enhanced academic performance is a function of many variables, namely the quality of

teachers, instructional method and materials used, students' socio-economic background, student intelligence quotient (IQ) as well as the school climate, all do influence, singly and collectively academic performance. Existence of peace plays a major role in the enhancement of academic performance in education system. Peace, therefore, is indispensable to the normal progress and development of an organization. For peace to be used as a foundational instrument in managing educational institution, deliberate effort must be made to introduce basic programme in peace education into the school curriculum which emphasizes the accomplishment of peace objectives through offering of peace research courses (Seltzer, 2008, p.275).

This peace education should emphasize human and social dimension of peace in its subject matter content, introduce the concept of human dignity and human rights with specific reference to such values as economic, equity, political participation, ecological balance, ethics, gender issues and various aspects of cultural violence. Through the harmonizing process of teaching and learning, peace education would enlighten students and adults concerning the ills that may destabilize the school system and affect academic performance. To achieve peace in academic institutions, which is one of the goals of sustainability, there is need to revitalize the educational system through the introduction of peace education and conflict resolution courses in the school curriculum so as to educate younger minds on the virtues of peace.

Peace is the core activity that is essential to the issue of achieving enhancement of academic programme goals and objectives in educational institutions. It is an essential tool to address sustainable development in academic institutions. There is, therefore, a very strong relationship between peace and enhancement of academic institutional programmes for sustainable development of educational objectives. In support of this contention, Alimba (2008) posited that peace education is a holistic education that takes into consideration the transformation of academic institutions and people in totality for personal development and the good of a society. The United Nations through its UNESCO (2004) report noted that for education management to be of benefit to the citizens, the content of literacy education for peace should be organized in ways that utilize the idealism inherent in seeking to satisfy human needs towards self-realization. This will ensure high learning outcome and sound discipline that will in turn enhance academic performance.

6.2.2 Stakeholders' Participation in Management

There is an immense communication potential with the stakeholders. Therefore, Rowley, J. (1997) identified a series of academic stakeholders as the main communication potential of higher education institutions: the current and potential students, their families and relatives, the local community, society, the government, the management team of the higher education institutions, the local authorities, the current and future employees.

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At the same time, Licata, J. and Frankwick, G. (1996) identified as academic stakeholders: the current students, the graduates, the business environment, society as a whole, the academic staff and the related-academic staff. The higher education institutions establish communication relationships with all these audience categories as they not only assert themselves through their specific features, but also "through their social and trustworthy image in their relations with other organizations, institutions and current and potential consumers. In this case, an essential role plays the existent image in the collective mind, an image characterized by continuity and consistency. The institutional elements, the academic environment specific services must meet the expectations of the consumers and organizations they cooperate with and relate to." (Nedelea M.O. and Nedelea A., 2007). As competitiveness is growing and the expectations of the target audience are increasing - students, their families, employees and employers, the academic staff, the government, companies, etc. – and the access to information is easier, "higher education institutions in the entire world have to evaluate and coordinate their activities according to the external environment influences, they have to make contact with the real market needs and include them in their daily agenda, which actually refers to adopting the communication techniques, tools and strategies of higher education marketing." (Daj A. and Chirca A., 2009).

Having efficiency, quality and competition as starting points, universities concentrate more and more their external communication efforts on attracting students who are perceived as consumers. (Conway, T. et al, 1994; Newson J., 2004; Cardoso S. et al, 2011). Schüller D. and Chalupský V. (2011) consider that the potential students are the main external communication target of the higher education institutions because through this process universities try to fulfil their knowledge needs as well as their expectations. Ramachandran, M. T. (2010) analysed the way in which the academic management uses service quality as a useful communication means with the students and how improving higher education service quality leads to a change in this communication. At the same time, Jongbloed, B. et al (2008) identified that students are both an internal and external communication target.

The higher education stakeholders are divided into two categories which correspond to the internal and external communication targets. Therefore, at internal level there are: the students, employees, the research teams, the academic management, whereas at the external level, the graduates, the business environment, society, the government and the professional associations. Matlay, H. (2009) identifies two other categories of academic stakeholders which aim at the two communication targets. In other words, at an internal level, there are: the students, the academic staff and the researchers, the related-academic staff and the institutional management, while at an external level: the students' families, the business environment, the professional entities, the government and the society as a whole. It follows that the more efficient the internal and external communication

process, the better and more visible the academic image is among the audience and on the market.

6.2.3 Extracurricular Activities for Institution

The real and practical experiences received by the people with help of games, sports, arts, literary, culture, etc. are known as co-curricular activities earlier known as Extracurricular Activities. To a greater extent, the theoretical knowledge gets strengthened and supplemented with relevant co-curricular activities related to the content taught in the classroom. Academic aspects of personality are solely accomplished by classroom, while aesthetic development, character building, spiritual growth, physical growth, moral values, creativity, etc. are supported by co-curricular activities. The execution of academic contents like frankness and clarity in language, creativity and innovation, and overall personality development is supported by co-curricular activities. It helps to develop co-ordination, adjustment, speech fluency, extempore expressions, etc. among students both at the college as well as in the society.

Role of co-curricular Activities in Student's Life

Besides academics, co-curricular and extra co-curricular activities play instrumental role in shaping and making overall growth and development of human mind. No doubt, one should primarily focus on academic activities to learn and excel the scholarly qualities. However, it is extra co-curricular activities like sports, games, art and culture, etc. that provide a good platform for a child/student to outshine his/her latent potentials to compete with the challenges that come on his/her way. In fact, it enables the children/students to enter into the unopened doors of their lives and become wise enough to go on the ways of the world. The co-curricular activities such as their participation in group activities like debates, quizzes, group discussion, essay completions, brain storming sessions, their interaction with peer groups, etc. make them learn practically and enter into the real life challenges and overcome them by their knowledge and competence.

The co-curricular activities facilitate in the multifacets development of various domains of mind and personality such as intellectual development, emotional development, social development, moral development and aesthetic development. Creativity, enthusiasm, energetic, and positive thinking are some of the important outcomes of the personality development achieved by co-curricular activities.

Acquisition of knowledge is not limited to what are in books and other sources of literature. Rather knowledge is based on what one learns through the experiences of one's real life. There are many human beings suffering from many problems which are more psychological than physical. Contentment in life rests on the mental satisfaction that varies from person to person and society to society. A great Indian poet Kabeer had knowledge in himself yet he needed interaction with such a mentor who can enlighten him. Therefore he went to seek the shelter of his guru Ramanand. The world knows well who Kabeer is today.

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Importance and Benefits of Co-curricular Activities

- It brings healthy competition amongst the students.
- The overall carrier of student shines and the leadership qualities grows in the students.
- It empowers and helps the students to express themselves freely.
- These activities help the students not only to be wise but also be fit and energetic in their lives. It also inculcates the values to respect other's view and feeling.
- The student gets exposure to organize activity, to develop skills, to co-operate and co-ordinate in different situations. It also provides ample opportunity for self-identification and self-assessment in different situations and circumstances.
- It provides sufficient skill how to behave and manage the situation when they are in contact with organizers, fellow participants, teachers, and people outside the school during cultural activity.
- It develops a sense of belongingness and it becomes very important in decision making situations
- It enhances the interest in the academics.

Role of Academic Institutions in Organizing Co-curricular Activities

If an institution does not promote the extra-curricular and co-curricular activities in proper direction, students might probably go into a situation where they will find chaos with no fruitful outcome. Therefore, the extra-curricular and co-curricular activities should not only be promoted by the institution but suitable mentors should be provided for the same. From level of school to the university, the teachers have great role to enrich their student in all respect through co-curricular activities. Although the role of teachers in the overall personality development of student is almost unlimited even some of them are listed below:

- The institute/university must plan the different activities to be carried out systematically throughout the year without much disturbance of academic.
- The concern faculty member should provide sufficient opportunity to their students to perform co-curricular activities without any stress.
- The institute should introduce some innovative programmes and encourage the students to effectively participate.

The academic institutions in their curriculum provide the co-curricular activities for development of the right brain. These facilitate skills of listening, language, fine and gross motor activity, discipline and expression, patience and leadership; all the while reaching the inner core of all that is fine about the human being. The virtues hidden in the inner cores of students can be explored with the help of co-curricular activities. It also helps the students being in the expression

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and active manifestation of their noble tendencies like, humility, continence, service, generosity, benevolence, ethics, moral, etc. It is also helpful for the natural reflections of basic instincts that found the basis of evolution of character of human being. The students can make use of their immense potential and available opportunities and resources only with the active participation in the co-curricular and extra-curricular activities.

6.2.4 Social Bonding Extension Services of Institutions

Education is the process of preparing the individual to find out one's inherent potentialities and develop the same to the maximum extent in order to derive utility for himself and contribute to the society. Educational institution is the important social agency whose contribution to the development of the society is most expected and the national development too is revolving around it. Community-oriented education, and its extensional activities are the modern ideologies of education. Educational philosophy lays great stress on the development of the society through the educational process and it is by the society, for the society and of the society. Swami Vivekanandha, a great educational thinker, assumed that service should be the guiding principles of education. Higher education fulfils social responsibilities through different objectives such as re-establishment of human principles, character building, promotion of abilities, cultivation of self-respect to foster moral values, spiritual thoughts, creating the feeling of universal brotherhood, developing scientific attitude, extension activities after teaching and research, etc.

Bhagat (2010) defines educational social responsibility as the voluntary efforts of the educational institutes inspired by the ethical excellence toward social development through various activities. Community development through activities like enhancement of educational standard of underprivileged groups, adult education activities, environmental awareness, ecological conservation, health awareness, healthcare and sanitation, adoption of village for holistic development are clearly given in the UGC guidelines which aim to facilitate students to generate new knowledge. Institution has wide scope for implementing extension activities.

Quality education believes in learners' centred curriculum and promotion of extension activities as per the need of the neighbourhood of the institute, like adult literacy, women empowerment, human rights awareness, legal rights awareness, protection of environment, rainwater harvesting, health awareness, hygiene and sanitation, prevention of diseases, prohibition of alcohol consumption, power and energy saving strategy, first aid, women and child care, training for time management, financial planning, waste management and revival of culture and heritage, etc. Man is a social animal and the education is for the social discipline and the social efficiency. Institution is an important social agency whose responsibility for the development of the society is inevitable and most required.

Importance of educational institutions in social services

Educational institutions in general and Higher Education in particular can contribute

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for the social rejuvenation in various ways. One cannot delink the institution from the society as it is the part and partial of the society. Mere policies and programs introduced by the government and the active work of NGO will not be sufficient to achieve the expected ends unless the student community takes virtual interest to restructure the society in order to arrive at social renaissance. Community orientation in curriculum transaction will facilitate the favourable attitude among students and inculcate social and national values. Nowadays the societal expectation from various services rendering sector is more.

The higher educational institutions of medicine, engineering, management, teacher education, technical education, polytechnic, diploma, law, agriculture, journalism, tourism, general arts and science colleges, research institutes, Business administration, Banking and commerce education and other such stream of study have wide and extensive scope for the contribution to the development of the society through curriculum, co-curricular and extracurricular activities.

Educational institutions should make active and conscious interest in the implementation of mission and vision of preparing students as moral human beings, prepare them for larger purpose of life with ethical, moral and spiritual aspect, and encourage them to learn, to find information, work collaboratively to acquire knowledge and skills and not mere job skills but also life lessons. They have to prepare students to be the contributors to the society, guaranteeing atmosphere for excellence in academic, research, leadership and character, desirable asset to the society and humanity and so on.

Students should find their value heritage which has been transferred from their forefathers and enrich the same to leave it their next generation. Education motivates students to assume social responsibility with creative social sense for the betterment of society which will act as the intrinsic motivation towards the meaningful contribution to the humanity. The institution should find all possible ways, through curricular, co-curricular and extracurricular approach and its extensional activities to sensitize students to become socially responsible

Institutional social responsibility

Educational institution is by the society, for the society and of the society. Hence it needs to assume full responsibility of the society. where it hails from. The institution through its extensional welfare programmes can work for the empowerment of the society because both the society and the institution are knitted well to support each other.

It can take various approaches to improve the quality of life of society. These are:

- **Philanthropic appro**ach: Adoption of any village which is yet to be developed in social, economic, educational, health and hygienic spheres. Institution can fulfil its social responsibility in various means such as by providing mass literacy, awareness about government's welfare schemes and on productive use of time and resources, legal rights of citizen facilitate, etc. Quality health services can be rendered at affordable cost.

- **Ethical approach**: It can contribute to prevention of evils like alcohol consumption and help the youth in the society imbibe desirable ideals, standard and values. Institution can rope in NGOs and governmental agencies and work on the empowerment of the society.
- **Legal approach**: institution can take due interest in creating awareness about the importance of the law and encourage the public to respect democratic principles. The above ideals can be implemented through counseling, awareness programmes, and research projects by students.
- **Economic approach**: Creating awareness of saving habits, security aspect, insurance policies, medical support systems and orientation of people to right economic choice will make desirable difference in the society. Conservation of environment and natural resources, promotion of quality product from agriculture, industry, entrepreneurship and service and encouraging economy will be a responsible attitude.

6.2.5 Outreach Programme for Societal Developmental Initiatives

Higher education institutions play an important role in shaping communities' development. Their activities can lead to raised wages and productivity, allowing countries to make impressive strides in accelerating social, economic, scientific, technological and political advancements.

History shows that strong economic growth in a country is generally grounded in a knowledge-based economy, especially where the country invests significantly in community-based research in science and technology, biomedical and allied health sciences, agriculture, husbandry and industry. Such growth is further bolstered by universities which offer quality education, and align their curricula with the needs of the community.

It is necessary for higher education institutions to involve themselves in community outreach-based research to contribute to a strong knowledge-based economy in their country.

And it is crucial for universities to expose students to the community early on in their studies – long before graduation. In fact, community outreach activities should be incorporated as core courses in university curricula.

This will increase students' competence and familiarise them with their societies' needs.

Having realized the importance of community outreach activities in boosting the social, economic and political sectors of their countries, some Rwandan and Ugandan higher education institutions have begun to take this approach. So far, two of Rwanda's universities are fostering community outreach activities that are shaping and changing people's lives. While the Kigali Health Institute (KHI) and some departments at the National University of Rwanda have adopted community outreach programmes, other institutions are still struggling.

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In addition to the KHI's clinics and consultancy centres that offer informative, rehabilitative and curative services in dental therapy, physiotherapy, medical diagnostic laboratory and family health therapy to the public, students and staff work in rural areas during the course of their academic year.

The institute's outreach activities revolve mainly around health services, such as health education, screening for certain illnesses and treatment in some serious cases. Importantly, academic staff and students also do door-to-door surveys and even hospital-based surveys to gather information on the prevalence of certain health-related problems. They also look at social issues that affect the population, such as collective trauma and mental health problems.

At Makerere University in Uganda, community outreach is highly valued, to the extent that it occupies a central position in the university's pursuit of quality education. By emphasizing training that makes the university relevant to society's needs, it is making community outreach-based research a reality. In this new portfolio, outreach activities include internships, consultancy and action research.

Within this context, Makerere has registered success in a number of ways. For example, its community outreach-based research has brought about innovations of various local products such as building materials, sanitary pads and paper-making from banana fibre, among others.

At Uganda Christian University, Save the Mothers – an international organization committed to partnerships that, through education which promotes the health and dignity of mothers and children in developing countries – has made excellent progress in community outreach among the rural poor.

The university offers a master's degree in public health leadership, which is contributing to changing the lives of rural mothers and children in Uganda. In addition to the Baby-Friendly Hospital program established at some hospitals the organization, in collaboration with the university, gives students the opportunity to interact with communities around issues of maternal health, allowing them to observe clinical settings where maternal health services are provided. They also participate in behavioural change initiatives in rural communities.

The way forward

Despite all this, a lot still needs to be done. And while community outreach-based research at institutions of higher education responds to some social problems, it does not yet provide sustainable, long-term solutions spread widely enough at the grassroots level. Universities should become integrated in their communities and work with them to overcome the hurdles that affect local life by seeking tailor-made, evidence-based solutions to problems that impede progress. We cannot ignore the financial and curriculum-related problems that still affect the successful implementation of community based-outreach research.

These challenges include the lack of clear plans for community outreach activities in some universities' academic calendars, curricula that do not include community outreach, rigid mind-sets and, importantly, the ever-present budget

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issue. Academic institutions should review their curricula and adapt them to the needs of and realities facing their communities. Curricula should be designed in ways that will equip students with critical thinking, analytical and problem-solving skills.

Universities should furthermore seek out and create synergies with industry, the private sector and civil society during the development and monitoring of their curricula. This will play a critical role in securing and leveraging additional resources for higher education, promoting innovation and technology transfer, and making sure that graduates have the skills and knowledge needed to respond to the developmental aspirations of their countries.

Research units do not always collaborate fully with community outreach departments to identify priority areas where both the community and the university can reap benefits. Research ethics committees at universities can play a role by setting standards that govern and promote community outreach-based research in the institution's research activities.

To mobilize funds for community outreach-based research, universities should become creative and innovative in their thinking. By establishing income-generating initiatives and carrying out consultancies that link them to the community, a university can capitalize on opportunities to do surveys on matters affecting the university itself. They can also engage in business activities that can generate income to be used to sustain community outreach activities. This, in turn, will feed into evidence-based solutions being found to various social problems in rural and urban areas alike.

Universities should also strengthen their sponsorship activities. They should revamp their public relations activities by engaging all stakeholders, including the community, partners, alumni and government, in activities that promote their development and success, while aligning these with the development of their countries. Universities facing challenges in promoting their research activities need to look at good practices in research uptake at other universities and forge strategic partnerships. Similarly, they should collaborate with community-based organizations to work towards improving the quality of life and well-being of individuals and groups – in short, the communities they serve.

Check Your Progress

1. When does internal communication take place in the institution?
2. Why is it important to maintain tranquility or peace in the campus?
3. What is the significance of extracurricular activities in students' life?
4. How can educational institutions contribute to social services?
5. Why should institutions be involved in outreach programmes for social development initiatives?

6.3 EDUCATION AS AN INTEGRAL PART OF EVERY INDIVIDUAL, FAMILY AND SOCIETY

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Society generally consists of complicated network of social relationship by which every human being is interconnected with his fellow men. At the same time, every relationship among human beings is not social. In a social system, education as a sub-system fulfils part of the functions of the society viz. getting the young-ones ready for the adult roles that they have to play. Thus, maintaining society over time. Education works in close interrelationship with other sub-systems. i.e., family, economy or state.

A society has a certain set of components working towards the goal of managing funds for the welfare of the people in education. Policies of the state influence the functioning of the system of education in any country. Funds provided by the system of economy largely decide the structure and functioning the system of education.

Similarly, the family background of the students of a social school influences the education system. Education system is only system which provides the necessary human resources for the other sub-systems. In this manner we can say that education is a sub-system of society and that it works in close interrelation with other sub-systems of society.

The interrelated system of social roles and norms organized about the satisfaction of an important social need or function is called a social institute. Institutions may also be defined as established forms of procedure. One of the main aims of the society is to prepare within the children the essential conditions of its existence and perpetuation.

The older generation exercises certain influences on the younger generation which is not yet ready for social life, with the objective of promoting in children the set of physical, intellectual and moral behaviour expected by the society from them as a whole. Frankly speaking, each generation tries to pass on its social heritage and cultural tradition to the next generation. This process of transformation is called the transmission of culture.

Socialization is a process which starts from the early years of the child where he/she is within the family environment. It is before we start our schooling. Social values and norms are generated by this section of age. If we observe the behaviour of the family members and he reward goes to the education.

Education and the Community

Man forms a society, because he cannot do without it. When some persons come in contact with others, and for protecting their interests indulge in natural give and take, they form a society. A group of persons alone cannot be called a society. For

a society it is necessary that its members feel a sense of unity and mutual relationship. When various persons of a community get interested in each other and consider themselves bound with some feelings, they bind themselves in a society.

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There is no limit to the dimension of a society. Within its size there may be only two persons or all the persons of the entire world. Within a big society there may be several small units and a certain person may be a member of several societies. In the world society there are several nations, within a nation there are several provinces, within a province there are many cities, in a district several villages, in cities several mohallas, associations, committees and many other social units.

A society has its own ideals. Every member considers his duty to safeguard them. The organization of a society is such that its members may look after the social interests along with protecting their own individual personalities. A person being a medical doctor, an engineer, a teacher or a musician can observe the social ideals in his particular field of activity the purpose of a society is quite comprehensive and permanent. It includes all the aspects of an individual's life.

Society is defined in various ways and the various definitions may be quite appropriate in their particular contexts. In this unit by the term 'society' we shall understand a group of individuals of a particular geographical entity which shares some common experiences and follow a certain culture. For the interest of all concerned this community recognizes some institutions and some local unity. Some consciousness is always present in it. For the fulfilment of some social purpose this group works as a unit.

Responsibility of society for education of the child

There is a close relationship between society and individual. It is the individual who forms the society but he is always influenced by it. After becoming a member of the society the individual becomes so concerned with its ideals and traditions that if he happens to ignore any of them, he is censored and regarded as immoral. Only that person is regarded as educated who is very well rooted in the social ideals of society. Family, school and state are different types of social institutions and all these leave undeniable imprints on the development of the child. The child learns many things unconsciously according to his environment. So those responsible for the development of the child must try to organize the environment in such a manner that it does not adversely affect the child's development.

It is our duty to make the child social. But the process of his socialization should be such that he experiences no difficulty in the same. In some social system the state shoulders the entire responsibility of the growth of the child. This situation is particularly true of a communistic state. In a democratic set-up everyone tries to fulfil his duties regarding the child. In a democracy the various units of the society arrange for education of the child in their own particular spheres. But these units

are responsible to the state of education for the child. In other words, in a way, been in a democracy the state undertakes the responsibility of child's education, but at the same time the society also cannot free itself from the same.

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Individual and society

The child is the future citizen of the society. Therefore, the welfare of the society rests on the proper education of the child. The society should shoulder this responsibility very sincerely. It should organize the environment in such a manner that the child can himself build up his personality in an ideal manner. In its attempt to make each individual social, sometime, the society crosses its limits. Then it is seen that many persons come under the pressure of some old social traditions and customs. As a result, their growth is blocked. If under this situation someone crosses the social sanctions, he is given some punishment. In our country many people are afraid of social boycott.

So they do not dare to go against social sanctions. Adherence to social sanctions must not imply that one should not rise against social evils. If social evils are not eradicated the growth of society will be blocked. The social environment should remain so open that everyone feels free to reach his maximum development; it is for the interest of the individual and society both that they maintain mutual co-operation and adjustment and each regards the development of the other as its own development. Thus the individual and society are interdependent.

Cooperation between school and society

The cooperation between the society and its various units is very necessary. If there is lack of cooperation between family and school and between society and school, no suitable environment for the child will be possible the problem of cooperation between the society and school is not so complex as between the school and family. Sometimes the gulf between the school and family becomes so wide that the child has to face two types of environments resulting into lack of harmony in his behaviour. Similarly, there should be no gulf between the school and society. The school has to serve the interests of society. In other words, the school should represent the society. It is in this sense that John Dewey has remarked that the school is a society. In the activities of the school the shape of the society should be clearly seen.

School cannot be separated from society, because the school is a necessary organ for the development of society. The students and teachers are members of the society and through their personalities they bring to school various social problems. The parents also bring pressure on the school through their demand expectations. Even then there appears to be a gulf between the school and society, because the environment of the school has become artificial. Whatever is done in the school does not appear to be related with the demands of society. So after completing his education, an individual is facing unemployment and cannot stand

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on his own les. By bringing the school near the society, self-confidence and self-reliance may be created in the individual.

Therefore, the school must be related to the social demands, it has been suggested by some educationists that parents should be invited to participate in school functions and they should be made conversant with the various activities of the school. Sometimes the teachers should visit homes of students and should talk to parents about their children's difficulties. By these measures the parents will feel that the school is paying due respects to them and it is sincerely interested in the growth of their children. The experts in the field education have also stated that the teacher should take the responsibility of cultural development of the nearby society. For this the teachers should organize some appropriate activities in the society. Thus the school will be influencing the society in a healthy manner, and in a way it will become a centre of social life.

Some educational duties of the society

In the modern days of democracy, it is very necessary to bring the school near the society. But at the same time it becomes imperative in the society to perform certain educational duties. These duties are related with the all-round development of the individual's personality. Thus each social institution in same way or other will act as a centre of education. Then in the general life of the individual the process of education will ever be on.

The society establishes the school in order to ensure the mental development t of the child. Similarly, the society should be careful about the other sides of child development. It should open gymnasium, and provide playgrounds, parks, garden and hospitals. The society must see that adequate provisions are made for distribution pure milk and other food articles and necessities of life at reasonable rates to all. Such a provision is not to be for children alone but for all – adult, old, men and women irrespective of their vocations.

The society should make arrangements for vocational education of children. If this is done everyone will be able to earn his living and the problem of unemployment will be solved in due course.

The society should see that everyone is permitted to enjoy freedom of speech. Any idea or doctrine must not be imposed on anyone. Everyone should be made free to follow his own ideals of life as long as he does not interfere with the rights of others. For encouraging freedom of speech, reading rooms, libraries, radio and TV sets should be provided in order that people may become well informed about the virus national and international happenings. Suitable arrangement should also be made by society for adult education. In fact, to educate he huge illiterate masses is a sacred educational duty of the society in our country.

The society should also look after the moral development of its citizens. It is non morality alone that the permanence of society exists. So attempts should

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be made for the maintenance of discipline in society. Fostering of liberal attitude and spirit of co-operation, tolerance, dutifulness, politeness and patience are necessary for moral development of the society. Black-marketing and dishonesty on the part of some shopkeepers and businessmen prevail only when the society tolerates it. The state laws cannot eradicate these evils unless the society also comes forward and takes suitable measures to stop these vicious practices. So it is the responsibility of society to maintain a moral environment. If the society is able to perform these duties the individual will automatically get education for developing good character.

The society must keep its ideals very high in order that it may not fall. High ideals of society ensure honesty, dignity of labour, self-respect and self-reliance in its citizens.

It is the duty of society to promote aesthetic senses in children. This may be possible through education in fine arts, painting, vocal music and dancing. If an individual forms the habit of being aesthetic in all his activities, then he will now tolerate any filth in his home, village and society, thus a healthy environment will be maintained in society an all will be happy.

Regarding religion, the society has a special duty. It must see that every citizen feels free to practice his faith without interfering with others' beliefs the society must teach its citizens that all religions are equal and based on love, sympathy and compassion. There should be no strafes and dissensions in the name of religion.

Socialization of the Child

The sole purpose of education is to socialize the child. The family is the first school of the child for this purpose. Then come the neighbours and companions. A child adopts behaviours by imitating adults. So the elders and others who come in contact with the child must be very careful in their behaviour. When the child starts going to school, he faces a new world and revolutionary changes occur in his behaviour. He regards the teacher as his idea. So through socialization the child picks up the social ideals, traditions and customs to be followed in order to win the approval of his elders. Needless to say society and its various units have to play a very important role in the socialization of the child.

Check Your Progress

6. What is the relationship between society and individual?
7. How does education help in the socialization of a child?

6.4 CONCEPTS OF MANAGEMENT

Before discussing the phenomenon of educational management, it is relevant to understand the concept of management and administration. Let us discuss these concepts one by one.

Management

The word 'Management' is derived from the French word 'manage' that means 'house- keeping'. Actually management refers to a set of activities that are required for running and proper functioning of institutions composed of human resource. Management is not a general activity. Another widely used word 'Administration' is derived from the Latin word 'master' that means 'accomplish'. Sometimes the words 'management' and 'administration' are used interchangeably. This is because of the fact that management is a term for managing industries and institutions effectively while administration is mostly used for the managerial functions of social institutions like educational institutes.

The concept will become clearer with some popular definitions of management and administration.

According to Henry Fayol, 'To manage is to forecast and plan, to coordinate and control'.

Van Fleet and Peterson defined management as 'A set of activities directed at the efficient and effective utilization of resources in pursuit of one or more goals'.

R.S. Daval focuses on the components of management as follows, 'Management involves the formulation of objectives, the process of planning, organizing, staffing, executing, coordinating, evaluating, controlling, and motivating with view to attain the objectives and finally involving improving the functioning for future'.

Administration

According to Brook Adams, 'Administration is the capacity to coordinate many, and often conflicting, social energies in a single organism, so adroitly that they shall operate as a unity'.

According to Ordway Tead, 'Administration is the comprehensive effort to direct, guide and integrates associated human strivings which are focused towards some specific ends or aims. It is conceived as the necessary activities of those individuals in an organization who are charged with ordering, forwarding and facilitating the associated efforts of a group of individuals brought together to realize certain defined purposes'.

Now, on the basis of these definitions, we can define management as the process of planning, organizing, directing, controlling and evaluating to accomplish predetermined objectives of an institution through coordinated use of human and material resources.

Luther Gullick has defined the components and functions of management through Planning, Organizing, Staffing, Directing, Coordinating, Reporting and Budgeting (POSDCORB) which can be understood easily (Figure 6.1):

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Fig. 6.1 *Difference between Management and Administration*

There is not much difference between administration and management. Management is a process of accomplishing organizational goals with the help of individual or groups of people whereas administration is related with directing and managing life in a social environment.

Organizations have two major functions: the function of forming policies and laying down objectives and the function of leading, guiding and directing the organization towards its set goals. Administration establishes policies that guide decision-making laws and regulations. Management helps in controlling people and implementing laws and regulations to achieve maximum output. The distinction between two terms is theoretical and in practice these are used interchangeably.

According to Knezevich, 'Management and administration are considered synonymous. Management is the term preferred in writing outside education. In recent years educators have come to accept management as a desirable rather than demeaning term'.

According to Sheldon, 'Administration is a function of determination of policy, coordination of finance, coordination of production and distribution as well as developing the structure of the organization while management is function of execution of the policy set by administration in specified time-limit'.

In Spreigel's opinion, 'Administration is the determinative function and management is the executive function'.

According to Brech, 'All management functions may be divided into two types of management, i.e. top level management and lower level management. The top level management may be called as administration and the lower level of management may be called as management'.

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Educational Management

When we talk about managing human resource in the field of education, it is termed as Educational Management. As we all know, education is the process of providing quality learning experiences to students through quality teaching and support system in order to impart knowledge, values, attitudes and skills with the ultimate aim of making them productive human resource of society.

Educational management is a theoretical application and management practice in the field of education or educational institutions. The concept of educational management may be explained by analysing the following definitions of educational management and educational administration:

According to Okumbe (1999): 'Educational administration is a process of acquiring and allocating resources for the achievement of predetermined educational goals'.

According to Knezevich, 'Educational administration is a specialized set of organizational functions whose primary purpose is to ensure the efficient and effective delivery of relevant educational services as well as implementation of legislative policies through planning, decision-making and leadership behaviour that keeps an organization focused on predetermined objectives, provides for optimum allocation and most prudent care of resources to insure their most productive uses, stimulates and coordinates professional and other personnel to produce a coherent social system and desirable organizational climate, and facilities determination of essential changes to satisfy future and emerging needs of students and society'.

According to Graham Balfour, 'Educational administration is to enable the right pupils to receive the right education from the right teachers, at a cost within the means of the state under conditions which will enable the pupils best to profit by their training'.

According to Kefauver, 'Educational administration approaches statesmanship when there are clearly formulated long-term policies and objectives, and when day-by-day activities and problems are dealt with under the guidance of the perspective given by such long-term policies'.

According to G.Terry Page and J.B. Thomas, 'Educational management is the theory and practice of the organization and administration of existing educational establishments and systems'.

Now we can conclude the following important facts about educational management:

- It is a specialized activity.
- In the process of educational management, the students achieve desired goals with the help of teachers and administrators.
- It involves coordination between all the infrastructure, human resource and support system of educational institution.

- It is goal oriented and focused on predetermined objectives for realization of the goals of education.
- It ensures optimum and quality output in educational institutions.

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Nature of Educational Management

Now the concept of educational management is clear to you but in order to have a deeper understanding it is relevant to discuss the nature and scope of educational management. The study of nature of educational management helps us to understand its philosophy whereas study of its scope provides us the knowledge of range, variety and limits of the subject.

Management is mandatory for every institution. If we analyse critically we will find that all types of management have many common characteristics like providing services and production of goods through coordination of all concerned human being and resources. Management in an industry and an educational institute has many common components but in actual practice they differ in goals, objectives, process, procedures, output and evaluation, etc. The analysis of difference between general and educational management will help us to understand the real nature of educational management.

1. Goal and Objectives

In case of management of industrial institution or company, generally the prime objective is the production of goods and their sales through its marketing strategies. In some other industries different types of services are provided to customers. The goal and motive of the company or industry is to gain more and more profit whereas in the case of educational management the focus is the welfare of the society and country through educating human beings to develop them as human resource for the country and civilized member of the society. In addition to this, the purpose of educational management is to develop one's individual personality by ensuring efficient coordination between management, teacher, students, supporting staff and available infrastructural and other resources. Here we may observe that educational administration is governed more by service motive rather than profit motive. In other types of administration there is no meaning of individual development and growth whereas major concern of educational administration is man's continuous growth and development.

2. Process and Procedure

Process and procedure of any activity depends on the goals and objectives. Management in industry involves dictatorial, coercive and authoritative procedure because it is concerned with production of goods with profit motive whereas educational management involves persuasive procedures because it is concerned with human welfare with service motive. Educational management is a delicate kind of management that requires more interaction among the concerned group and the individuals. In other kinds of management, the higher level of group interaction may be neglected. Process and procedures of educational management

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are more democratic in comparison to other types of managements. Extent and opportunity of face to face interaction is higher in educational institutions because it includes teacher-taught interaction during the teaching-learning process whereas there is little opportunity for face to face interaction between authority and the subordinate workers.

3. Output and Evaluation

The products of educational institution are human resource for the nation and an individual with a developed personality who can work as a civilized member of the society whereas the products of industry are goods and services of public interest. Similarly the difference between the procedures of evaluation of output depends on the function of management which measures and evaluates the outcome. The motive of this function is the improvement of quality. Evaluating outcome of educational process is a difficult task because it is not easy to judge complex human personality and human behaviour. Basically, education is a life-long process and also the outcome of formal educational institute is not readily available. Generally the evaluation is subjective in education whereas results are perfectly objective, material and outwardly clear. Therefore, the evaluation in industry is easier in comparison to educational institutions.

All the human resources involved in an educational institution are core practitioner of the management process. The administrators like managers, vice-chancellors, directors, principals or heads of institutions as well as teachers, students and supporting staff are always involved in the process of educational management. The nature of educational management in India is moreover democratic because India is a democratic country. This clearly indicates that nature of educational management depends on the nature and environment of the concerned community.

Educational management may be at micro and macro level. The micro level involves management related to immediate concerns of an educational institution. It includes management of day to day work of a school, college or university for proper execution of policies, rules and regulations to achieve desired objectives. On the other hand macro level educational management has a broader perspective and aims at overall management of the educational institutions.

Scope of Educational Management

According to Tead, general management has scope broadly under five areas, namely, production, assuring public use, finance and accounting, personnel and coordination. It differs in application when applied to different areas of educational management which are as mentioned as follows:

1. The product in educational management is achievement of pupils.
2. Public use is assured by educational administration by providing quality output of human resource.
3. Finance and accounting in educational institutions is also under the scope of educational management. Educational system requires funds for its

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functioning and educational administration which is concerned with monetary input and output.

4. Educational management's major concern is with human resources because it involves principal, teacher, supporting staff and students.
5. Every educational institution requires coordination between the concerned persons and infrastructural resources.

In all the educational institutes, all the above functions are mandatory. Education and educational management have a very vast scope. It is the task of management to develop and ensure smooth and effective functioning of educational institution through proper cooperation and coordination between all participants of the process.

Check Your Progress

8. What do you mean by the term 'management'?
9. List some important facts about educational management.

6.5 ANSWERS TO CHECK YOUR PROGRESS QUESTIONS

1. The internal communication takes place mostly with the academic staff and the current students. This does not really differ from the external communication as it comprises a series of tools which are also used by the latter. The internal communication involves various elements such as complex rules, values, the internal climate and objectives, and thus the communication message turns into a multidimensional construction.
2. Peace or environment it operates is significant because it is the greatest factor facilitating institutional management towards sustenance of performance. This is because crisis time always witnesses little or no investment in education sector since academic performance of students in particular does not appear to be as good as it is expected to be. This has given rise to uncomplimentary remarks from parents and other stakeholders on the academic performance of tertiary institution students. Nwagwu (2004) observed from the performances of our educational institutions that lack of peace causes instability and breeds general dissatisfaction, unimpressive attitude towards academic work, viewed in terms of educational cost as a result of unconducive learning environment. One can equate crisis or lack of peace period in education to what could be regarded as educational holocaust (almost complete annihilation of the school system). Crisis of any type in tertiary institutions need to be properly addressed from the level of family, through the school system up to tertiary educational system, if academic performance must be enhanced.

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3. Besides academics, co-curricular and extra co-curricular activities play instrumental role in shaping and making overall growth and development of human mind. No doubt, one should primarily focus on academic activities to learn and excel the scholarly qualities. However, it is extra co-curricular activities like sports, games, art and culture, etc. that provide a good platform for a child/student to outshine his/her latent potentials to compete with the challenges that come on his/her way. In fact, it enables the children/students to enter into the unopened doors of their lives and become wise enough to go on the ways of the world. The co-curricular activities such as their participation in group activities like debates, quizzes, group discussion, essay completions, brain storming sessions, their interaction with peer groups, etc. make them learn practically and enter into the real life challenges and overcome them by their knowledge and competence.
4. Educational institutions in general and Higher Education in particular can contribute for the social rejuvenation in various ways. One cannot delink the institution from the society as it is the part and partial of the society. Mere policies and programs introduced by the government and the active work of NGO will not be sufficient to achieve the expected ends unless the student community takes virtual interest to restructure the society in order to arrive at social renaissance. Community orientation in curriculum transaction will facilitate the favourable attitude among students and inculcate social and national values. Nowadays the societal expectation from various services rendering sector is more.
5. Higher education institutions play an important role in shaping communities' development. Their activities can lead to raised wages and productivity, allowing countries to make impressive strides in accelerating social, economic, scientific, technological and political advancements. History shows that strong economic growth in a country is generally grounded in a knowledge-based economy, especially where the country invests significantly in community-based research in science and technology, biomedical and allied health sciences, agriculture, husbandry and industry. Such growth is further bolstered by universities which offer quality education, and align their curricula with the needs of the community. It is necessary for higher education institutions to involve themselves in community outreach-based research to contribute to a strong knowledge-based economy in their country. And it is crucial for universities to expose students to the community early on in their studies – long before graduation. In fact, community outreach activities should be incorporated as core courses in university curricula.
6. The child is the future citizen of the society. Therefore, the welfare of the society rests on the proper education of the child. The society should shoulder this responsibility very sincerely. It should organize the environment in such a manner that the child can himself build up his personality in an ideal manner. In its attempt to make each individual social, sometime, the society crosses

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its limits. Then it is seen that many persons come under the pressure of some old social traditions and customs. As a result, their growth is blocked. If under this situation someone crosses the social sanctions, he is given some punishment. In our country many people are afraid of social boycott.

7. The sole purpose of education is to socialize the child. The family is the first school of the child for this purpose. Then come the neighbours and companions. A child adopts behaviours by imitating adults. So the elders and others who come in contact with the child must be very careful in their behaviour. When the child starts going to school, he faces a new world and revolutionary changes occur in his behaviour. He regards the teacher as his idea. So through socialization the child picks up the social ideals, traditions and customs to be followed in order to win the approval of his elders. Needless to say society and its various units have to play a very important role in the socialization of the child.
8. The word 'Management' is derived from the French word 'manage' that means 'house- keeping'. Actually management refers to a set of activities that are required for running and proper functioning of institutions composed of human resource. Management is not a general activity. Another widely used word 'Administration' is derived from the Latin word 'master' that means 'accomplish'. Sometimes the words 'management' and 'administration' are used interchangeably. This is because of the fact that management is a term for managing industries and institutions effectively while administration is mostly used for the managerial functions of social institutions like educational institutes.
9. Some important facts about educational management are:
   - It is a specialized activity.
   - In the process of educational management, the students achieve desired goals with the help of teachers and administrators.
   - It involves coordination between all the infrastructure, human resource and support system of educational institution.
   - It is goal oriented and focused on predetermined objectives for realization of the goals of education.
   - It ensures optimum and quality output in educational institutions

6.6 SUMMARY

- The process of communication represents an essential element: the internal communication has the purpose of informing employees about the organization, while the external one sends messages to different audience categories which are outside the organization.

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- The internal communication takes place mostly with the academic staff and the current students. This does not really differ from the external communication as it comprises a series of tools which are also used by the latter.
- The external communication in higher education involves a larger audience because it comprises all the messages the higher education institution sends externally and to the environment it operates in.
- Tranquility is a sense of peace. It is the feeling you have while sitting under a starry sky, listening to the crickets. The aura of tranquility comes from the calm in the world, which makes you feel you are without a care in the world.
- Peace is the core activity that is essential to the issue of achieving enhancement of academic programme goals and objectives in educational institutions. It is an essential tool to address sustainable development in academic institutions.
- At the same time, Licata, J. and Frankwick, G. (1996) identified as academic stakeholders: the current students, the graduates, the business environment, society as a whole, the academic staff and the related-academic staff.
- If an institution does not promote the extra-curricular and co-curricular activities in proper direction, students might probably go into a situation where they will find chaos with no fruitful outcome
- Education is the process of preparing the individual to find out one's inherent potentialities and develop the same to the maximum extent in order to derive utility for himself and contribute to the society
- Higher education institutions play an important role in shaping communities' development. Their activities can lead to raised wages and productivity, allowing countries to make impressive strides in accelerating social, economic, scientific, technological and political advancements.
- At Uganda Christian University, Save the Mothers – an international organization committed to partnerships that, through education which promotes the health and dignity of mothers and children in developing countries – has made excellent progress in community outreach among the rural poor.
- Universities should also strengthen their sponsorship activities. They should revamp their public relations activities by engaging all stakeholders, including the community, partners, alumni and government, in activities that promote their development and success, while aligning these with the development of their countries.
- Society generally consists of complicated network of social relationship by which every human being is interconnected with his fellow men. At the same time, every relationship among human beings is not social.

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- Education is an instrument for developing a society and for ensuring equity and social justice. In India, the education scenario at the time of Independence had structural flaws with inequities characterized by gender, social and regional imbalances.
- The overall demand for higher education, adult education, and professionally related courses, is increasing in India. The changing social demographics, the increased number of secondary school pass-outs, desire for continual learning, and the growth of the information technology are a few important reasons for this change.
- It is not possible for any society to provide opportunities for the development of all. Hence, mutual co-operation between the society and various schools is very necessary.
- The word 'Management' is derived from the French word 'manage' that means 'house- keeping'. Actually management refers to a set of activities that are required for running and proper functioning of institutions composed of human resource.
- Luther Gullick has defined the components and functions of management through Planning, Organizing, Staffing, Directing, Coordinating, Reporting and Budgeting (POSDCORB) which can be understood easily.
- Organizations have two major functions: the function of forming policies and laying down objectives and the function of leading, guiding and directing the organization towards its set goals.
- When we talk about managing human resource in the field of education, it is termed as Educational Management.
- Management is mandatory for every institution. If we analyse critically we will find that all types of management have many common characteristics like providing services and production of goods through coordination of all concerned human being and resources.

6.7 KEY WORDS

- **Internal communication:** This is the transmission of information between organizational members or parts of the organization. It takes place across all levels and organizational units of an organization.
- **A co-curricular activity:** Previously known as an extracurricular activity, it is a non-academic activity that all students, regardless of nationality, must participate in.
- **Outreach programme:** A programme designed to help and encourage disadvantaged members of the community.

- **The Baby-friendly Hospital Initiative (BFHI):** It was launched by WHO and UNICEF in 1991, following the Innocenti Declaration of 1990. The initiative is a global effort to implement practices that protect, promote and support breastfeeding.
- **Curricula:** The plural form of curriculum. In education, a curriculum is broadly defined as the totality of student experiences that occur in the educational process. The term often refers specifically to a planned sequence of instruction, or to a view of the student's experiences in terms of the educator's or schools' instructional goals
- **POSDCORB:** This is an acronym widely used in the field of Management and Public Administration that reflects the classic view of Organizational theory. It appeared most prominently in a 1937 paper by Luther Gulick. However, he first presented the concept in 1935.

6.8 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. What is the difference between internal and external relations in the management of institutions?
2. How does issue of unrest impact the education management process of an institution?
3. Write a short note on stakeholders' participation in management.
4. Why is education an integral part of society?
5. How is society responsible for education of the child?
6. What is difference between management and administration?
7. State the nature and scope of educational management.

Long-Answer Questions

1. Discuss the role of relations management in academic institutions.
2. Critically analyse why managing campus tranquillity is fundamental to achieving educational goals.
3. Discuss the role of extension services of institutions in transforming society.
4. Analyse the significance of the institute's outreach activities in societal development.

6.9 FURTHER READINGS

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UNIT 7 MASS MEDIA

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Structure

7.0 INTRODUCTION

Transmitting a message from sender to receiver goes through the process of communication and there are numerous factors without which the same message can't be disseminated or sent to its target. Roman Jacobson's model of communication describes the process with the help of two-layered model of communication wherein both layers explain the factors of communication and the function of communication, respectively. Launched in September 2004 by the Indian Space Research Organisation (ISRO), EDUSAT caters to higher education network for UGC's country-wide classroom project with Consortium for Educational Communication (CEC) as its nodal agency. Its launch is aptly touted as an epoch-making event in programmes related to education.

The EDUSAT programmes are aimed at providing support education through the low-cost ground segments and reaching those people who are living in far off places in India and are almost unapproachable. In recent years, we have witnessed a massive advancement in information and telecommunication technologies. This opened a new vistas of opportunities for Internet and telematics. On account of interactive group communication through an electronic medium, teleconferencing began to provide a variety of advantages in teaching-learning. It is now used for dissemination of information, consultations with experts, guidance in response to policy, interviews, focused group discussions, etc. Computers and microcomputers have drastically transformed the competence of teachers as well as students in the education sector in India.

In addition to introducing various aspects of communication process and programming, this unit analyses the role of EDUSAT, telematics, internet and computers in education.

7.1 OBJECTIVES

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After going through this unit, you will be able to:

- Explain communication process and programming
- Understand programmes conducted by UGC- EDUSAT, internet and telematics
- Analyse implications of information technology to the educational system
- Learn about advances in information and telecommunication technologies

7.2 COMMUNICATION PROCESS

Communication is a process that involves a series of actions and a number of factors to transmit a message from one end to another. It would be good for you if you look for the examples of communication around and then work out various steps of this process. Let us think of normal conversations we do every now and then. Think and analyse what happens when one is thirsty and wants a glass of water to quench the thirst. The person in question in this case is the sender of a message which is formulated in a language which the receiver of that message understands. If the language is English the message prepared could be a sentence like 'give me a glass of water please!' This is sent through a medium and the communication is considered as complete if the receiver of the message gives a glass of water to the originator of the message. In this case the action of giving the water would be the feedback. Sometimes the act of communication becomes difficult as there are many people talking to each other and in spite of talking loud to the extent of shouting the message may not reach the ears of the selected respondent. It is said that the noise in the channel has not allowed the communication to take place and as a result the receiver of the message has not reacted in the manner desired by the speaker.

Now let us understand various factors without which the process of communication cannot be complete.

Sender (communicator): The first factor essential for any communication to take place is the sender who wants to send a message to the person with whom he/she is communicating.

Message: It is the end result of ideas, emotions and thoughts that the sender feels necessary to communicate.

Channel: The message cannot be transmitted without a channel. The communication channels work in the same way as the English Channel would do for facilitating the movement of ships from one end to another.

Receiver (Audience): All messages have a destination commonly known as the audience. In fact without them the existence of messages cannot be imagined.

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Feedback: The reaction or processes initiated by the receivers of messages is called the feedback. For example if somebody asks for a glass of water by saying, 'Please give me a glass of water', then the recipient of the message should respond to it by offering him/her a glass of water. This act of offering the glass of water would in this case be the feedback of the message.

Noise: The messages always travel in the channels that are having many disturbances. Sometime the disturbances are the necessary part of the channels themselves. Telephonic lines work because they have current flowing in them which becomes the carrier of electro-magnetic waves. The noise is the cause of communication failure in many situations.

Encoding: Encoding is the formulation of messages in the communicator's mind. It means the communicator translates his purpose (ideas, thought and information) into a message and also decides on the medium to communicate his planned message.

Decoding: Decoding is the interpretation of the message by the receiver. The receiver looks for the meaning in the message which is common to both receiver and the communicator.

Encoding and decoding are two very significant elements in the process of communication. These elements have been frequently used by many scholars but have not been described adequately enough. The sender of the message needs to encode the message in signals that could be transmitted along a channel. Similarly, the receiver of the message has to decode the messages from the signals that have been transmitted. This appears to be very simple if we think in terms of voice to be converted into electromagnetic frequencies, but when we look deeper into communicative situations where the human psyche is involved then the complexities of encoding the messages is revealed.

The human emotions, ideas and thoughts are in the form of psychic image (de Saussure, 1913) and they have to be first converted into signs capable of being articulated in the form of speech which is later encoded into different kinds of signals like radio waves or script depending upon the medium one wants to use. This can be done only if the receiver of the message has the capability of decoding the speech from the signals so received and later decode the speech into psychic images that were intended by the sender. The communication cannot take place without these elements even if the other factors of communication are in place.

The encoding and decoding on further analysis become even more complex when the factors like individual's personal experience (explained by Bertrand Russell as bundle of sensory experiences) and the social hierarchy and sub-cultures are included in the process. These factors start affecting the encoding and decoding of the messages and the notions of selectivity and availability (George Gerbner, 1956) are introduced.

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Roman Jacobson's Model of Communication

The process of communication has been best described by Roman Jacobson (1958). He has described the process with the help of two-layered model of communication in which the first layer describes the factors of communication and the second layer on the reverse describes the function of communication. Similarly, the factors described by Roman Jacobson are also a bit different than those described just above.

	Context	
Addresser	Message	Addressee
	Contact	
	Code	

Check Your Progress

1. What is communication? When does the act of communication become difficult?
2. What does Roman Jacobson's Model of Communication state?

7.3 THE PROGRAMMES CONDUCTED BY UGC: EDUSAT

Launching of EDUSAT: An Epoch-Making Event

On September 20, 2004, a geostationary satellite named EDUSAT was launched into space by India. It was equipped with KU-band and extended C-band transponders, each providing 6-7 national beams and 5 regional beams. Dr A P J Abdul Kalam, the then President of India, said, "Democratization of knowledge indicates knowledge for everyone, any time, any place. EDUSAT will be extremely useful in decreasing the digital divide."

Chief Objective

The two main objectives of the EDUSAT programme are to provide support education through the low-cost ground segments and to reach the unapproached people of India. Primarily meant for schools, college and higher education, it is also helpful in non-formal education.

Channels

According to Prof. M Mukhopadhyay, EDUSAT provides at least the following facilities:

- Virtual classroom through two-way videoconferencing
- Educational broadcast with or without interactive facilities

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- Virtual classrooms through computer conferencing, both real-time as well as asynchronous
- Digital storage and retrieval of educational software at convenience
- Internet-supported interactive learning.

The network has the facility of recording the lessons at both the stages, i.e., teaching as well as questioning. The matter can be stored in digital form in the server; anyone who has access to a computer can retrieve a lesson. It is therefore possible for a student to revisit and relive a classroom experience—repeatedly, if necessary.

Coverage

The satellite is specially configured to operate multiple beams covering different parts of the country. Communication coverage is provided through national beams and five regional beams.

In its initial phase, EDUSAT is envisaged to cover about 150 classrooms per beam. When fully operational, it will have the capacity of 30 uplinks and about 5000 remote terminals per uplink. At full capacity, it is expected to service one hundred million ground terminals.

The Story of EDUSAT

Prof. Marmar Mukhopadhyay, Director and Chairman of Educational Technology and Management Academy (ETMA), Gurgaon, who was closely associated with the project, has given a very interesting and vivid account of EDUSAT's history in his '*Story of EDUSAT*' (2006). In his words, "EDUSAT is the culmination of years of micro and meso-level experiments in satellite delivered interactive learning."

Indian Space Research Organization (ISRO) and Indira Gandhi National Open University (IGNOU) collaborated in the use of satellite communication for enriching learning processes and experiences. Under the ISRO-IGNOU joint venture (2002), four TV channels and two interactive networks were dedicated to education. These successful joint interventions led ISRO to design, develop and launch a satellite specifically for educational purposes.

The history of harnessing a space satellite to widen the geographical and demographical coverage of education in India goes back to the Satellite Instructional Television Experiment (SITE) in 1971.

The EDUSAT Project

A document titled *'Educating the Nation: Need for a Dedicated Satellite',* published by NIEPA in July 2003 provides brief details of the project.

In his foreword to the document, B S Bhatia, Director, Development and Educational Communication Unit (DECU) has observed, "The educational

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institutions of the country have continuously endeavoured to use the latest technology to support the process of education. The education Ministry (now known as the Ministry of Human Resource Development) was amongst the first to support and join the Satellite Instructional Television Experiment way back in 1975. It subsequently set up the central and state institutes of educational technologies to use satellite television for primary education. The UGC, through its consortium of Educational Commission and EMRC–AVRCs, actively utilizes satellite broadcasting for higher education. The IGNOU, too, now uses satellite broadcasting, leading to the operationalization of the Gyan Darshan and Giovanni Channels."

Functioning of the EDUSAT

The audio and video signals get beamed to the satellite when the teacher uplinks the station while the camera is put in recording mode. The satellite receives the signals and beams them back to the earth. The reception terminals at various designated places start receiving the signals as soon as the reception dish antennas are oriented towards the satellite transponders. Thus, the teaching activity at a single location can now be viewed and heard in many classrooms within the coverage area of the satellite's beam.

Need for Infrastructure

There is need for good infrastructure such as classroom with a large 29-inch television set with a camera or a computer with LCD projector, and audio equipment.

Channels for Education

Considering the early educational goals at all levels of formal education, in 16 different regional languages, and adoption of a wide variety of interactive techniques, education was in need of a large number of channels and a dedicated satellite. The document *'Need for a Dedicated Satellite: Educating the Nation'* (2003), NIEPA, published with the permission of the Development and Educational Communication Unit of Indian Space Research Organization (ISRO), Ahmedabad, lists the minimum number of channels as in Table 7.1.

A few channels already exist in some form or the other, e.g., *Gyan Darshan, DD Sports, DD Bharati.* There are other dedicated channels through cable television like *Aastha, Discovery, FTV, National Geographic, Z, news channels, Cartoon Network,* etc. Then, there are special programmes for women, youth farmers, etc. For a better-organized approach to continuing education for human development through satellite-based education, it is necessary to take a long-term holistic view. A dedicated satellite can help learners in getting access to a variety of educative programmes and channels, which will catalyse the leap in intellectual development that is necessary for India to be globally competitive.

Table 7.1 *The Channel Count*

	Content	*Focus*	*No. of channels*
1.	School education	One dedicated channel per state	28
2.	Higher & professional education	One dedicated channel per state	28
3.	Science and technology for all channels	Like Discovery/National Geographic	02
4.	Language learning	Indian and foreign languages	01
5.	Youth channel	Education in sports, music, dramatics, etc.	02
6.	Executive/career channel	Continuing education of workforce in Hindi & English	02
7.	Gold channel	For senior citizens in Hindi and English	02
8.	Women's development	In Hindi and English	02
9.	Heritage channel	Education in Indian scriptures and culture, e.g., DD Bharati, Sanskar and Aastha	01
10.	Toddler's channel	Cartoon Network	02
11.	Health channel	In Hindi and English	02
	Total		72

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Formal and Non-formal Education through the Satellite

In view of the massive challenge in ensuring effective utilization of the dedicated satellite for education, it will be necessary to design and develop a management structure that can actually take care of the coordination and collaboration mentioned above. It has to be a joint venture of several ministries and departments of the Government of India, particularly the Ministry of Human Resource Development, Ministry of Information Technology, and Department of Space.

Organizations assigned the responsibility of the streams were as follows:

Formal education	*Non-formal education*
NIEPA	Departments of
NCERT (School ed)	Adult Education
CEC / UGC (Higher ed)	Rural Development
NOS (DE-School ed)	Health & Family Welfare
IGNOU (DE-Higher ed)	Women and Child Development
AICTE (Technical & Management ed)	HelpAge India
ICAR (Agri ed)	
NCTE (Teacher ed)	
ICMR (Medical ed)	

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Table 7.2 Channels for the First Phase

Channel contents	*No. of channels*
State channels (both broadcast and interactive on time-sharing basis)	28
National channels for Science, Mathematics and CBSE	02
Sports, music, dramatics and painting	02
Executive and occupational education	02
Health	02
Children	02
Senior citizens	02
Women's development	02
Language learning	01
Indian culture and heritage	01
Total	44

Check Your Progress

3. When and why was EDUSAT launched in India?
4. List the various channels for education in India.

7.4 INTERNET AND TELEMATICS, ADVANCES IN INFORMATION AND TELECOMMUNICATION TECHNOLOGIES

Let us discuss some of the recent trends in education technology now.

- **Language laboratory:** Classroom teaching does not have much scope for auditory and oral experience. In order to overcome this problem, language laboratories have come into existence. Language laboratory is an innovation in educational technology, which aims at providing ample opportunities for pupils to listen to the language spoken with reasonable perfection and practice speaking that language themselves. It provides students with technical tools to get the best samples of pronunciation of the language. It recognizes existing individual differences in the language like aptitude, interest and skills. The electronic devices used in the laboratory stimulate the eyes and ears of learners to acquire language skills easily and quickly. Language laboratory makes use of broadcasting, television programmes, web-assisted material and video-taped recordings in the target language. The first language laboratory was established at Ealing Technical College in the UK in 1961.
- **Blended learning:** A combination of multiple approaches to learning is known as blended learning. Accomplishment of blended learning is possible through the use of 'blended' virtual and physical resources. A typical example of this would be a blend of technology-based materials and face-to-face

sessions, which have been used together in order to deliver instruction. In different contexts, different definitions have been proposed to explain the concept. Blended learning also is used to describe learning that mixes various event-based activities, including face-to-face classrooms, live e-learning and self-paced learning. As defined by Graham (2005), 'blended learning is blending of different learning methods, techniques and resources and applying them in an interactively meaningful learning environment'. Researchers have developed the following definition for blended learning in higher education: 'blended learning is learning that is facilitated by the effective combination of different modes of delivery, models of teaching and styles of learning and founded on transparent communication amongst all parties involved in a course'.

Blended learning combines face-to-face learning and online learning with a goal to provide the most efficient and effective instructional experience by combining several delivery modalities. Here, multimedia teaching objects are used by the teacher to improve his teaching efficiency, so that better learner differentiation may be applied in the process. With the help of teaching objects which constitute the most significant part of class activities, the conducting teacher prepares students. The teacher uses a range of online activities or exercises for this purpose. It helps in recognizing the potency of incorporating verbal and text-based communication. The proportion of online learning activities and face-to-face learning activities may vary considerably in direct and mediated modes of communication.

- **E-learning:** e-learning is a flexible term which can be used to describe a means of teaching with the help of technology. E-learning is efficient as it eliminates distances and subsequent commutes. Distance is said to be eliminated because the e-learning content is designed through media which can be accessed from computer terminals which are properly equipped and other means of the Internet accessible technology. E-learning can either be synchronous or asynchronous. Real-time communications, such as video conferencing, teleconferencing and online chat programmes are synchronously implemented. Some other means of communication are utilized in asynchronous means that do not require real time responses. E-mail, list serves, threaded discussions, blogs and online forums are some of the examples of asynchronous e-learning. E-learning is beneficial to education, corporations and to all types of learners. It is advantageous as it is affordable, saves lot of time and produces quantifiable results. As compared to traditional learning, e-learning is more cost effective because lesser amount of time and money is spent travelling. Geographic location is not a concern in this type of learning as it can be done anywhere and there are no travel expenses involved. As a result, this type of learning is much cheaper than learning in a formal setting at a traditional institute. Students like e-learning because it recognizes individual differences and

accommodates different types of learning styles. Students have the advantage of learning at their own pace.

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- **Peer tutoring:** Peer tutoring consists of students teaching other students on a one-to-one basis, or one tutor working with two or three students simultaneously. The tutor may be of the same age or in the same grade level as the student being tutored. Peer tutoring is a cooperative undertaking in which students share not only the answers but the process used to reach those answers. Peer tutoring has the advantage that it can individualize instruction for students based on individual needs. In many cases, all students participating in peer tutoring get to serve as both instructors and as learners. It is an opportunity for them to practice and extend their thinking on a particular subject. As a result of their effort to help others in the process, knowledge and skills of tutors are reinforced, which in turn help them to develop their self-confidence. Peer tutors also develop a sense of responsibility in the process of helping students to learn.
- **Mobile learning:** Using portable computing devices with wireless networks enables mobility and mobile learning, allowing teaching and learning to extend to spaces beyond the traditional classroom. As a supplement to information and communication technology, online learning and other traditional learning methods, we can say that mobile learning is at present the most useful method and plays a fundamental role in enriching the learning experience. It is now extensively understood and has been proven in various countries that mobile learning has been very effective in engaging disinterested and disaffected learners to engage in the process of learning. This otherwise would not have been possible with traditional methods. In the method of mobile learning, students are able to learn at their own pace, by exclusively catering to their necessities in a modified and personalized way. With the help of mobile learning, educators may reach out to students who cannot or do not have access and exposure to formal or continuous and regular education. Here, students have access to learning materials and therefore these students can be brought within standardized curriculum and their learning can be encouraged and evaluated by monitoring them. Almost everyone now has a mobile phone. As a result, students today have lot of opportunities to read views of experts in various fields and blogs of business experts, follow audio or video conferences and webinars (web-based seminar) and interact with professionals while sitting in their homes or a classroom. This helps in overcoming the problems of distance, time and expenditure.
- **Collaborative learning:** When a small group of learners work together towards a common goal, irrespective of the fact that they have different levels of performance, then this method of instruction is termed as collaborative learning. 'Collaborative learning is based on the idea that learning is a naturally social act in which participants talk among themselves' (Gerlach, 1994). It is through discussion among participants that learning occurs.

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Learners are responsible not only for their own learning, but also for others' learning. Active exchange of thoughts and ideas happens within small groups, which not only enhances interest among participants but also encourages critical thinking. This method enables students to evolve their own problem-solving strategies and to synthesize their knowledge.

- **Cooperative learning:** Cooperative learning organizes classroom learning activities in such a way that it involves students learning to work together in different ways to help information acquirement and preservation. Here, the teacher helps in facilitating students' learning, rather than merely giving information. In this new method of child education, students learn to work together and everyone succeeds only when the whole group succeeds. In cooperative learning, groups are formed and within the groups each member is assigned a certain role. Students work on the assignment until all group members successfully understand and complete it. Cooperative learning can be a beneficial method of child education because students are encouraged to work together and there is no competition against each other. Cooperative learning also presents a more social aspect to learning and a social environment can help encourage a child's social skills, which in turn help in his education.
- **Cognitive apprenticeship:** In this approach, an attempt is made to establish a master-apprentice relationship between the student and the teacher. Initially, the apprentice observes the master or teacher in this process. The role of the teacher is to demonstrate learning and afterwards the master or teacher withdraws support as students instantaneously proceed on their own. Thus, the student first watches the teacher who models the task successfully and also provides suitable prompts to assist the learner in becoming more proficient. Gradually, the teacher gives more and more responsibility to the student until the teacher watches the student perform same task. With the help of this technique, students acquire effective strategies and tactics for attempting many types of task.

Then there are techniques like teleconferencing, and Computer-Assisted Instructions which are being discussed in detail here.

Teleconferencing

Innovative technologies and delivery strategies are increasingly being used in order to meet the challenges of upgrading and updating knowledge and providing accessible learning opportunities through communications. The emerging communication and information technologies are gradually covering the entire span of human activity. Advancements in communication technologies brought about developments in many fields. The main use of communication technology is in the field of distance education. This is because distance learning requires a broad range of administrative, coordinated and instructional activities for ensuring high quality, cost-effectiveness and interactive programmes. Various channels are used

for this purpose but the latest and the most effective trend used for such type of communication is teleconferencing. It is used mostly for business meetings, but nowadays it has also been extended to the field of education. Teleconferencing provides a variety of advantages in teaching-learning.

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Teleconferencing is actually an interactive group communication through an electronic medium, which can bring people together under one roof, even though they are separated by hundreds of miles. Thus, it can be used equally well for varied participants groups in different settings, situations and purposes. The word, teleconferencing, has originated from the combination of two words 'tele' and 'conferencing'. The word 'tele' means distance and 'conference' means discussion. With the help of teleconferencing, two or more persons located at two or more different locations are connected so that they can hear and see each other. Thus, it can be concluded that teleconferencing is an electronic medium which helps people located at different places to communicate. Teleconferencing makes it possible to connect the resource persons at one end and the learners/participants at dispersed centres and engage them in dialogue, discussions and activities with effective learning outcomes.

Characteristics of Teleconferencing

The characteristics of teleconferencing are as follows:

- It provides learning to a number of people together, who are located at different locations.
- For any organization or institute, it is cost effective in terms of time, travelling and spread of resources.
- It takes resources to the learner and expands the learning opportunity.
- It can be designed to meet the specific requirements of training, in terms of content, language and conditions.
- It involves direct communication.
- Input is given by the resource person and received by two or more persons together.
- A variety of methodologies are used in this programme, hence there is greater motivation, appeal and retention of information on the part of receiver.
- Animation, graphics and other techniques can be used in teleconferencing for demonstration and experiments.
- It also conveys sights, sounds and spirit of subject, and hence gives more interesting view of an issue.
- Feedback is received on the basis of which changes can occur in teaching strategies to meet learner's need.
- It involves discussion, questioning and interaction on various levels resulting into increased level of communication and learning skill.

- It provides active environment and real-life situations for learning. Hence, participants feel they are connected.

Essential Components of Teleconferencing

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Teleconferencing is an electronic means which can bring together three or four people in two or more locations, to discuss or share the use of two-way and one-way video. It uses full motion and slow scan, electronic blackboards, facsimile, computer graphics, radio satellite and videotext. However, the most essential part of all forms of teleconferencing is a good quality audio system to help immediate interaction among participants for exchanging information. Let us discuss some essential components of teleconferencing:

(i) **Participants/Receiver***:* Participants are persons who are involved in communication. They are located at different locations at a particular time. If teleconferencing is related to education, receivers are students and mostly it is used in the case of distance education.

(ii) **Resource person/sender/AV material***:* On one end, resource person or sender imparts knowledge or takes lectures. It may be a person or audio-visual material having automatic function but resource will always be involved in imparting knowledge. In a business meeting, it may be a senior person.

(iii) **Interaction***:* Interaction plays a significant role in any type of communication and so in the case of teleconferencing. It is a very important component of teleconferencing. Interaction takes place between sender and receiver or even between learners. In distance education, students interact to solve their queries; they may ask questions and also reply to the questions.

(iv) **Material***:* Different types of teaching aids or help of graphics, pictures, charts, models, specimen and other projected aids like: films, slides, computer-aided presentations, etc., act as material in teleconferencing.

Each of these components has a definite role to play during the whole process. Lack of any one of them can make teleconferencing less effective. In addition to these components, there are various other features in teleconferencing which may make it more effective, but these are utilized according to the level of institute or organization, as it may prove costly.

Types of Teleconferencing

Different types of teleconferencing technologies can be classified as follows:

1. Video conferencing
   (i) One-way video conferencing
   (ii) Two-way video conferencing
      (a) Roll-about video conferencing
      (b) Point-to-point video conferencing
      (c) Multipoint video conferencing

2. Audio conferencing
   (i) Dial-up mode
   (ii) Meet-me mode

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3. Audio-graphic conferencing
4. Computer conferencing

1. Video conferencing

In video conferencing, television cameras are mainly used by resource persons at the teaching end to illustrate activities, demonstrations, discussions, etc. This type of video conferencing is known as television-based video conferencing. Resource persons may transmit computer generated visuals. This type of video conferencing is known as computer-based video conferencing. In reality, computers may also be included in video conferences for display of PowerPoint slides, graphics, etc. Similarly, video cameras (or, more commonly, web cameras, which are low resolution versions of video cameras) may be used in computer-based teleconferences to enable multimedia exchange. With the help of video monitors, groups located at the learner ends can see as well as listen to resource persons. Interactivity between resource person and the learners or participants may happen through audio only (one-way video and two-way audio conferencing). Learner centres may also make use of facilities available at the teaching end for exchanging both visual and audio information among all participating locations (two-way video conferencing).

(i) **One-way video conferencing*:*** In one-way video conferencing, the audio-video information can be one-way or can be a one-way stream from institutional teaching end to its learning centre or school. These centres or schools may communicate with the teaching end in turn, with a telephone or other audio-based hook up. The connection can be used for question and answer sessions, discussion on relevant points and for clarification of specific details. The potential of one-way video conferencing (point-to-multi-points) has been demonstrated in India through various experiments conducted by some educational institutions. The system can be used for teaching different topics, including sciences. For example, dissection of frog or conduct of an experiment by the expert can be seen or understood by students located in different schools, or at homes. Heart transplantations and specialized surgical procedures can be relayed for medical students to view and learn valuable medical techniques from.

(ii) **Two-way video conferencing:** Two-way video conferencing systems are generally instances of multipoint communications with facilities for exchanging visual as well as aural information among all participating locations. Different conferencing systems under this category are:

   (a) **Roll-about video conferencing*:*** A roll-about video conferencing system is one which is connected through telecommunication links to

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other systems, which are located at different places and can be converted into a traditional conference rooms and connected to other similar systems located at different places. Video or audio devices like microphones, cameras, document scanners, monitors, speakers, etc., are all part of the hardware that consists of roll-about video conferencing system.

(b) **Point-to-point video conferencing*:*** With this type of video conferencing, multimedia communications are enabled between any two points at which participants are present, who may be single individuals or groups. Information may be conducted through desktop personal computers (PCs) or video telephony, or even through roll-about systems.

(c) **Multipoint video conferencing*:*** In a multipoint video conferencing system, three locations can interact with each other simultaneously in real time. By creating a hub at the central site, point-to-point conferencing systems can also be upgraded for multipoint use, and matters are arranged in such a way that the video conferencing traffic can be switched dynamically through the central hub among the different locations.

2. Audio conferencing

Audio conferencing can be thought of as extended telephone conversation, but instead of talking with only one person, you may be talking with several people, located at multiple sites (schools). Audio conference is a convenient way to bring people from diverse locations together, to participate in effective discussions. Audio conferencing network is an effective communications tool for sharing information and experiences, and is inexpensive to design and implement. Audio conferencing can be used for various purposes. It can create an inexpensive communications link between a physical education class and a sports reporter on the playground, or a medical science class and an operation theatre in a hospital. In audio conferencing, students can listen to the teacher and ask questions. Neither the teacher nor the students can see each other. Moreover, motivated students are likely to be benefited more as they would actively participate in the discussion. The teacher, therefore has an important role to play in creating a favourable learning environment and sustain the motivation of students. The level and quality of language used by the teacher also determine the effectiveness of the system. In a developing country like India, audio conferencing can prove to be an effective means of distance learning.

Basically, there are two different ways in which the audio conferencing takes place:

(i) **'Dial-up' mode:** In dial-up mode, calls are directed to individual locations by the bridge operator, one by one and conference mode is initiated after completing the dial-up process. A lot of time in setting up the conference is consumed if the number of locations involved exceeds five or so. Hence, in this case the 'meet-me' mode is preferred.

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(ii) 'Meet-me' mode: In meet-me mode, at appointed time of the conference, different locations are expected to dial-in to the audio bridge. Each of these calls is received by the operator at the bridge and he/she puts them on hold. The operator initiates the conference mode, once all participants have been called-in and thereafter, the conference begins. The switching mechanism at the bridge is such that it also provides for late callers entry in the conference.

3. Audio-graphic conferencing

In audio-graphic conferencing, static visuals like graphics, pictures, photographs charts, etc., can also be exchanged in addition to audio through the same communication link. In more sophisticated versions of audio-graphic conferencing, slow-scan video images such as those of the participants themselves can also be exchanged.

4. Computer teleconferencing

It is the most effective way of teleconferencing, but at the same time a lot of money, infrastructure, etc., are involved. Adequate facilities of hardware facilitate information to be sent and received at the convenience of both the teacher and the student with the help of computers. Computer conferencing can be text-based or full video-based.

Selecting the type of teleconferencing

The following criteria help in selecting a suitable type of teleconferencing based on requirements:

- Access
- Teaching functions
- Novelty
- Cost and number of learners
- Skills
- Interactivity and user friendliness
- Speed

All these points should be kept in mind before selecting the type of teleconference in a particular situation. Only then it will be beneficial.

Formats of Teleconferencing

A careful analysis of learning tasks is required for effective teaching and identification of critical areas in a subject. To meet the learner's needs and master the tasks, necessary materials have to be developed. The teleconference programme has to have a sequence and segmentation that will actively guide a learner to understand the concepts. Care must be taken that the material and examples are relevant to the learners' experience as well as challenging and interesting. Different formats should be used for interaction. These are discussed as follows:

- **Illustrated lecture:** A variety of visual materials are used by resource persons in this format to illustrate ideas, concepts and practices in his/her lecture. Text, teaching aids and other media resources may also be used for illustration.
- **Team teaching:** In this format, skills and experiences of two teachers are brought together to present different aspects of the subject. Alternatively, one teacher takes the role of theory presenter and the other one provides practical applications of the concepts. The approach in team teaching should be to enrich, clarify and supplement. The most important advantage of this method is that it provides variety and breaks the monotony of presentation by a single teacher. It also reduces the load of teaching.
- **Interview:** In this format, a moderator interviews expert(s) from the point of view of the learners to obtain information, views and opinions on issues. Adding visuals help comprehension and create interest in the topic. Celebrity guests add enthusiasm to teaching and motivate students to get a closer view of existing situations and trends.
- **Panel discussion:** The reason for using this format is that as the experts discuss a given issue among themselves, learners get different viewpoints or perspectives on the topic.
- **Conversation:** In this, concepts are discussed and clarified through conversation and dialogue between two people.
- **Case study:** Field visual problems, situations and issues, actual cases, etc., are presented in this format to stimulate learners to reflect and draw conclusions. These studies are compressed and provide a great learning resource. Key situations are focused which allow viewers to observe and draw conclusions. Case studies are best pre-recorded and edited. The learners can also express their feelings and difficulties. Teachers can give their approaches, viewpoints and experiences.
- **Brainstorming:** The function of brainstorming is to get the learners/ participants to voice their ideas in order to create a list and suggest solutions to problems based on their participation.
- **Project work:** Through this method, the learner can be assigned a 'project' addressing problems, and problem is the one which require research in the field, consultations with experts to find solutions through discussions, experimentation etc.
- **Field visit:** Actuality is pre-recorded and used in teleconference sessions to show real situations and cases, which are otherwise not always possible in normal classroom situations.
- **Demonstration:** Processes and principles are illustrated with the help of a demonstration. An activity is demonstrated by an expert, beginning with

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theoretical assumptions. Later, it moves to practical application. A demonstration can be pre-recorded or live followed by a discussion of the learners.

- **Drama:** Ideas, attitudes and different perspectives of an issue can be presented through drama. Dramatizing situations is helpful in situational analysis. Understanding of relationships and dynamics of behaviour can be created by the roles played by participants. Drama format engages the learner to reflect and relate to real-life situations. Creative expressions involve the learner to develop a variety of skills.
- **Quiz game:** This format encourages and stimulates learners to participate directly in the subject matter. This can be pre-recorded or performed live. The competition itself is a motivator and encourages learners to participate.
- **Question and Answer:** Here, questions may be asked by experts with a view to encourage learners to think, express and participate. This can be done in various ways like providing multiple choices, objective type questions, etc. To address the difficulties in concept, questions for comprehension, application, analysis and evaluation have to be carefully structured. Framing questions is an art and requires practice.

A combination of formats will bring in variety to best meet the educational needs.

Functions of Teleconferencing

The functions of teleconferencing in education and training are as follows:

- Impart information, build attitudes, provide role models, etc.
- Upgrade skills
- Share experiences
- Facilitate problem-solving
- Offer counselling
- Supervise/conduct/guide project work

The leaner and participant groups could vary from students, teachers, grass-root level functionaries, community groups, farmers, housekeepers, experts, administrators to high level executives, etc.

Uses of Teleconferencing

Teleconferencing is essentially a means for communication and training. Teleconferencing can be used for dissemination of information, consultations with experts, guidance in response to policy, interviews, focused group discussions, etc. As a technology, it has broad applications in education, business/corporate communication, training and development, governance and professional and medical courses/services.

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Various uses of teleconferencing in education are discussed as follows:

- **Effective support for remote learners:** Teleconferencing can be very useful when most of the potential students are widely scattered in communities that are far apart.
- **Cost effectiveness***:* The cost for starting and operating an audio teleconferencing system is relatively low in comparison with other available methods of serving remote learners.
- **Flexible system:** The system used can be adjusted quickly to serve large or small groups.
- **Familiar instructional mode:** The mode of instruction is similar to that of the seminar, with the instructor being in charge of the discussion and able to stimulate multi-location interaction.
- **Information:** It can be used to keep students and teachers informed about important developments and innovations in knowledge.
- **Easy scheduling adjustments:** A scheduling adjustment can be made readily as for on-campus classrooms.
- **Linkage of institutions:** It can link various schools, learning centres or homes with the main institution (teaching end). Thus, it can help teachers in providing quality education to members participating schools or students. Thus teleconferencing makes it possible for participating schools or learning centres to draw upon the best resources and experts in the specific field of study, who may not be available to all schools or students under normal circumstances.
- **Multi-location access-control***:* Access to instructions in the programme can be controlled through a limited number of off-campus centres.
- **High-quality instruction:** The quality of instructional materials can be kept high because of the need for careful and early preparation.
- **Immediate feedback:** The teleconferencing system provides a facility for immediate feedback to learners and allows them to convey their reactions to the tutors.
- **Adequate preparation:** Members can participate more freely and equally with adequate preparation, in comparison to traditional face-to-face conferencing.
- **Cooperation:** It has made unique collaboration and cooperation possible among subject experts, teachers and students of diverse capabilities and interests, for enriching their thirst of knowledge and sharing their contribution in the field of education.

Apart from education, teleconferencing is also very useful in other sectors. Let us discuss this now.

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- **Training and development:** Teleconferencing can be used to provide training and staff development for capacity building in the areas of agriculture, nutrition, family welfare, health, etc., in remote rural areas. A large number of groups such as community workers, farmers, functionaries, etc., can be approached through teleconferencing for sharing of experiences, extension activities, raising issues, mobilizing activities, introducing government schemes, projects, and conducting campaigns. Teleconferencing has been effectively used for empowerment of women and local self-government bodies and training of grass-root workers spread over large geographical areas.
- **Business/Corporate communication:** In business and corporate sector, teleconferencing has been used for a variety of purposes such as interviews for recruitment, organizing conferences, project supervision, problem-solving, information dissemination, consultations and training of personnel. Education, training, information, instruction and counselling are merged, resulting in overall improvement of staff performance.
- **Governance:** Planners, administrators and executives can directly and simultaneously interact with people at all levels using teleconferencing facilities. This enables speedy dissemination of policy, problem-solving, execution, monitoring implementation of projects, and providing expert consultations.
- **Professional and medicinal courses and services:** Teleconferencing is being increasingly used in the field of medicine. With expert diagnosis and medical advice, hospitals can provide medical services in remote areas. Similarly, many professional training institutes are using teleconferencing to provide quality teaching support to widely dispersed student community.

Check Your Progress

5. What is the concept behind language laboratory as far as education in India is concerned?
6. What do you mean by collaborative learning?
7. Which are two ways in which the audio conferencing takes place?
8. List some of formats of teleconferencing.

7.5 IMPLICATIONS OF INFORMATION TECHNOLOGY TO THE EDUCATIONAL SYSTEM

The age of computers is dawning in schools. It is taking over the world swiftly and surely. It is quite a jump from traditional teaching—reliance on textbooks—to the use of computers. Computers serve a dual purpose. They expose students to

modern technology while inculcating in them a new and scientific approach to learning.

Broadly speaking, computers in education are used for the following:

1. Instructional purposes.
2. Curriculum development.
3. Educational administration and management.
4. Educational planning.
5. Educational documentation.
6. Educational test construction.
7. Scoring and processing of examination results.
8. Educational research.
9. Educational surveys.

Computers as an Aid to Learning

As observed in *Computer-Based Training- Vol. 12* (1987), "The computer's ability to perform logical operations is a major characteristic and must surely be central to any computer application. In the context of learning, the rapid response to a learner's action is of particular benefit as there can be quick reinforcement of good ideas which the learner has and any misconceptions may be corrected. Many motor skills can only be learnt by direct use of the equipment concerned."

Educational Implications of Computers

Computers may aid the learning process in the following ways:

1. By providing information and instructions.
2. By asking questions.
3. By being tirelessly repetitive.
4. By stimulating processes.
5. By selecting the right speed for providing information for individual learners.
6. By providing opportunities to try different things.
7. By displaying data dynamically.
8. By sparing us from doing tedious calculations ourselves.
9. By doing difficult calculations.
10. By providing information from a vast store of knowledge.
11. By letting us check how well a learner understands a topic, by means of a computer.

Four Focal Areas of Computer Management Support (CMS) to Teachers

The four areas are as under:

(1) Constructing, scoring and analysing tests.

(2) Keeping records of students' performance and progress through courses.

(3) Providing guidance to the students and advising them on the choice of next course module.

(4) Reporting on the performance and progress of students to individual students, tutors and educational administrators of the institutions.

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The basic objective of CML (Computer Managed Learning) is to relieve the teacher from these tedious time-consuming tasks so that he can more profitably utilize his time and energy for instructional work. Here the teacher, the students and the computer work in close coordination, each doing the tasks most suitable to him/it. The teacher prepares course materials, teaches and helps the students in their learning.. The student learns through course materials selected to suit his/her individual needs. The computer processes information quickly and accurately and maintains records. A general model of computer managed learning showing the roles of the student, the computer and the teacher is shown in the figure.

Specific Uses of Computers in Education

I. Computers' Educational Aims

(1) Computers motivate students to achieve these aims in an optimal manner.

(2) Computers provide meaningful experiences to students to achieve aims.

(3) Computers assist goal attainment by stressing sequential learnings.

(4) Computers assist in the formation of realistic goals.

(5) Computers assist in the realization of goals by stimulating feeling of success.

(6) Computers assist in the achievement of goals by providing appropriate material for students of diverse capacity and achievement levels.

II. Use of Computer in Drill for Reinforcement of Learning*:* Computer-assisted instruction (CAI) has a variety of software to facilitate teaching–learning situations. Drill may be stressed. Students need practice to review/embed what has been learned, otherwise retention may not last long. Repetition for the sake of repetition is not recommended Software emphasising drill material should be selected very carefully. Only relevant material should be chosen for drill purposes for the use of the learners.

A computer does not tire of presenting drill experiences to learners. Nor does a computer become frustrated and rude. For correct responses provided by students to programmed drill items, a smiling face appearing on the screen of the computer can indeed personalize learning.

III. Use of CAI in New Learning*:* The fourth factor in emphasizing CAI might well be new learnings to be acquired by students. Each student using a computer terminal may experience programmed instruction. With programmed learning, a learner may read a few statements or see a demonstration on the screen of the computer. The student, in turn, responds to a multiple-choice or completion item based on what was comprehended

from the sentences read or demonstration experienced. After he responds, the computer screen may show a smiling face if the response given was correct. If incorrect, the involved student may try again to respond correctly. If a second wrong response was given, the correct answer is provided on the screen. The successful learner in each response given is ready to progress to the next linear item. The student responding incorrectly also is ready for the next sequential item, after seeing the correct response on the screen. 'Read', 'Respond', and 'Check' are concepts emphasized again and again in sequential programmed items. New learnings, not drill and practice, are being emphasized.

IV. Computer Learning Based on Individual Needs: Each student can achieve individually his/her own unique optimal level of achievement. No student needs to wait to have other learners' progress at a similar level of achievement. Learners may individually progress as rapidly as personal capabilities permit using computer terminals.

V. Computer-Learning and Problem Solving: CAI may also provide problem solving experiences for students. Thus, a problem is presented on the screen of the microcomputer. The student using keys on the microcomputer types a related decision. Feedback on the screen is provided to the learner relating to the typed decision. A new problem is then presented directly related to feedback to the involved learner regarding the previously made decision. Again, the student types a choice to be made involving, perhaps, four alternatives in a multiple-choice item. Feedback is again provided to the student on the quality of decision made, as well as new sequential problem presented on the screen.

VI. Microcomputers in the Reading Curriculum: Marlow Edger thinks that there are numerous means of utilising personal computers in teaching students in the area of reading. Tutorial programmes provide pupils with new learnings. Thus a programme might emphasize each of the following uses in terms of developing word attack skills:

1. Phonics in assisting learners to associate sound with symbols.
2. Syllabication in guiding pupils to divide words into syllables and thus unlock unknown words.
3. Structural analysis in which students learn to divide words into prefixes, suffixes and root words.
4. Configuration clues whereby learners perceive shape or form of specific words for identification purposes.
5. Picture clues whereby a picture provides the clue to the identification of unknown words.
6. Context clues in helping students to identify a word within the confines of a sentence. The unknown word must make sense with other words contained in the sentence.

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Additional uses for microcomputers include drill and practice, as well as simulations and games. Wright and Forcier listed the following criteria for software selection for drill and practice as well as simulations and games:

Criteria for drill and practice programmes	*Criteria for simulations and gamers*
1. Format is interactive	1. Clear direction.
2. User can establish the pace.	2. Simple keyboard paddle use.
3. Provision made for progression in levels of difficulty.	3. Varying levels of difficulty.
4. Items at same level of difficulty can be selected at random.	4. Realistic situation for role-playing.
5. Employs motivational techniques.	5. High level of interest maintained throughout.
6. Rewards presented for correct responses.	6. Results predicated on user input.
7. Incorrect responses handled appropriately.	
8. Teacher can modify content.	

Functions of the School Administration and the Teacher in Using Computers in Education

(i) New functions of the teacher will depend upon the specific purpose for which the computer is used.

(ii) A technical expert should be consulted in the selection and purchase of hardware.

(iii) An agreement should be made with the suppliers for supply and installation of the computer.

(iv) One or two persons of the school should be trained in operation and servicing of the computer.

(v) A small centrally located room should be selected for the installation of the computer.

(vi) Storage space should be provided for software programmes.

(vii) A teacher called as 'computer manager' or 'computer resources person' shall be the overall in-charge of the computer. He will coordinate the entire work in this regard.

(viii) In CAI, the teacher has the chance to use new tools which will enhance his individual satisfaction and increase his efficiency.

(ix) The teacher will be liberated from his routine duty.

(x) The teacher will be in a position to produce elaborate graphs and tables.

(xi) The teacher can compute accurately and rapidly huge data.

Computers can never be a threat to teachers. The computer is after all a tool itself, incapable (so far) of independent action. It has no inborn wisdom. It carries out the instructions given to it at incredible speed. It stores the data and gives it back when called upon to do so, in split seconds. Nevertheless, instructions

have to be given to it by teachers. The computer therefore is a medium or tool in the teaching/learning process. It is the teacher who decides which part of the curriculum the computer can handle. It can be the flashing of a piece of text with blanks for missing information by way of a teaching tactic; or a multiple choice question with alternatives on the display screen for testing and recording a student's score.

Developing Competence of Teachers and School in Using Microcomputers

For achieving proficiency in computer usage, the following means may be utilized:

1. Organizing workshops stressing relevant objectives.
2. Conducting faculty meetings containing vital agenda items.
3. Arranging video tape presentations on model procedures in computer usage.
4. Showing slides, film strips, and films presenting sequential significant content.
5. Planning talks by qualified resource personnel to participants on curriculum and uses of the computer.
6. Visiting classrooms in which effective computer usage is being stressed.

In-service education for teachers and administrators in microcomputer use in the curriculum should:

1. Provide new learnings sequentially.
2. Emphasize utilitarian values in teaching and learning situations.
3. Stress meaningful, understandable content.
4. Inculcate purpose or reasons for learning.

Types of CAI Programmes

1. **Logo*:*** This system developed by Feurzeing and Papart provides instruction which can be used to produce pictures on an oscilloscope or make a little mechanical robot. Often the students suggest their own tasks and then write appropriate programmes.
2. **Simulation and gaming:** This system enables the student to mount an experiment in symbolic form. For instance, experiments involving the breeding of fruit flies are often used in teaching genetics.
3. **Controlled learning:** Controlled learning involves the use of interesting adaptive strategies. It includes both drill and practice. Drill and practice programmes are supplementary to the regular curriculum followed by the classroom teacher.

Devices Used in CAI

Ronald Gentile mentions the following devices used in CAI:

1. Typewriters ask a question under computer control and answer a question under student control.

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2. Film projection devices, on the basis of student responses, select films, present auditory and visual materials and automatically score students responses,
3. Displays superimposed on films highlight certain aspects of the films.
4. With Cathode-ray tube (CRT) monitors, a pen can be used for drawing curves or indicating on a screen. These answers can then be evaluated by a computer.
5. Random-access to slides and films. These are two devices developed for auditory communication. They are:
   (i) Compiled Speech: The computer has random access to pre-recorded phrases which can rearrange on the basis of student response. For example, the computer can 'tell' the student a chemical formula.
   (ii) Synthetic Speech: Here the computer uses a set of rules to convert stored speech sounds into meaningful patterns.

Check Your Progress

9. How do computers aid the learning process?
10. What are the main functions of the school administration and the teacher in using computers in education?

7.6 ANSWERS TO CHECK YOUR PROGRESS QUESTIONS

1. Communication is a process that involves a series of actions and a number of factors to transmit a message from one end to another. Sometimes the act of communication becomes difficult as there are many people talking to each other and in spite of talking loud to the extent of shouting the message may not reach the ears of the selected respondent. It is said that the noise in the channel has not allowed the communication to take place and as a result the receiver of the message has not reacted in the manner desired by the speaker.
2. The process of communication has been best described by Roman Jacobson (1958). He has described the process with the help of two-layered model of communication in which the first layer describes the factors of communication and the second layer on the reverse describes the function of communication. Similarly, the factors described by Roman Jacobson are also a bit different than those described just above
3. On September 20, 2004, a geostationary satellite named EDUSAT was launched into space by India. It was equipped with KU-band and extended C-band transponders, each providing 6-7 national beams and 5 regional beams. Dr A P J Abdul Kalam, the then President of India, said,

"Democratization of knowledge indicates knowledge for everyone, any time, any place. EDUSAT will be extremely useful in decreasing the digital divide." The two main objectives of the EDUSAT programme are to provide support education through the low-cost ground segments and to reach the unapproached people of India. Primarily meant for schools, college and higher education, it is also helpful in non-formal education.

4. Considering the early educational goals at all levels of formal education, in 16 different regional languages, and adoption of a wide variety of interactive techniques, education was in need of a large number of channels and a dedicated satellite. The document 'Need for a Dedicated Satellite: Educating the Nation' (2003), NIEPA, published with the permission of the Development and Educational Communication Unit of Indian Space Research Organization (ISRO), Ahmedabad, lists the minimum number of channels.

   A few channels already exist in some form or the other, e.g., *Gyan Darshan, DD Sports, DD Bharati.* There are other dedicated channels through cable television like *Aastha, Discovery, FTV, National Geographic, Z, news channels, Cartoon Network, etc*. Then, there are special programmes for women, youth farmers, etc. For a better-organized approach to continuing education for human development through satellite-based education, it is necessary to take a long-term holistic view. A dedicated satellite can help learners in getting access to a variety of educative programmes and channels, which will catalyse the leap in intellectual development that is necessary for India to be globally competitive.

5. Classroom teaching does not have much scope for auditory and oral experience. In order to overcome this problem, language laboratories have come into existence. Language laboratory is an innovation in educational technology, which aims at providing ample opportunities for pupils to listen to the language spoken with reasonable perfection and practice speaking that language themselves. It provides students with technical tools to get the best samples of pronunciation of the language. It recognizes existing individual differences in the language like aptitude, interest and skills. The electronic devices used in the laboratory stimulate the eyes and ears of learners to acquire language skills easily and quickly. Language laboratory makes use of broadcasting, television programmes, web-assisted material and video-taped recordings in the target language. The first language laboratory was established at Ealing Technical College in the UK in 1961.

6. When a small group of learners work together towards a common goal, irrespective of the fact that they have different levels of performance, then this method of instruction is termed as collaborative learning. 'Collaborative learning is based on the idea that learning is a naturally social act in which participants talk among themselves' (Gerlach, 1994). It is through discussion among participants that learning occurs. Learners are responsible not only

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for their own learning, but also for others' learning. Active exchange of thoughts and ideas happens within small groups, which not only enhances interest among participants but also encourages critical thinking. This method enables students to evolve their own problem-solving strategies and to synthesize their knowledge.

7. Basically, there are two different ways in which the audio conferencing takes place:
   (i) 'Dial-up' mode: In dial-up mode, calls are directed to individual locations by the bridge operator, one by one and conference mode is initiated after completing the dial-up process. A lot of time in setting up the conference is consumed if the number of locations involved exceeds five or so. Hence, in this case the 'meet-me' mode is preferred.
   (ii) 'Meet-me' mode: In meet-me mode, at appointed time of the conference, different locations are expected to dial-in to the audio bridge. Each of these calls is received by the operator at the bridge and he/she puts them on hold. The operator initiates the conference mode, once all participants have been called-in and thereafter, the conference begins. The switching mechanism at the bridge is such that it also provides for late callers entry in the conference.
8. Different formats should be used for interaction. These are as follows:
   - Illustrated lecture: A variety of visual materials are used by resource persons in this format to illustrate ideas, concepts and practices in his/her lecture. Text, teaching aids and other media resources may also be used for illustration.
   - Team teaching: In this format, skills and experiences of two teachers are brought together to present different aspects of the subject. Alternatively, one teacher takes the role of theory presenter and the other one provides practical applications of the concepts. The approach in team teaching should be to enrich, clarify and supplement. The most important advantage of this method is that it provides variety and breaks the monotony of presentation by a single teacher. It also reduces the load of teaching.
   - Interview: In this format, a moderator interviews expert(s) from the point of view of the learners to obtain information, views and opinions on issues. Adding visuals help comprehension and create interest in the topic. Celebrity guests add enthusiasm to teaching and motivate students to get a closer view of existing situations and trends.
   - Panel discussion: The reason for using this format is that as the experts discuss a given issue among themselves, learners get different viewpoints or perspectives on the topic.
   - Conversation: In this, concepts are discussed and clarified through conversation and dialogue between two people.

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9. Computers may aid the learning process in the following ways:
   (i) By providing information and instructions.
   (ii) By asking questions.
   (iii) By being tirelessly repetitive.
   (iv) By stimulating processes.
   (v) By selecting the right speed for providing information for individual learners.
   (vi) By providing opportunities to try different things.
   (vii) By displaying data dynamically.
   (viii) By sparing us from doing tedious calculations ourselves
10. Some of the main functions of the school administration and the teacher in using computers in education are:
    (i) New functions of the teacher will depend upon the specific purpose for which the computer is used.
    (ii) A technical expert should be consulted in the selection and purchase of hardware.
    (iii) An agreement should be made with the suppliers for supply and installation of the computer.
    (iv) One or two persons of the school should be trained in operation and servicing of the computer.
    (v) A small centrally located room should be selected for the installation of the computer.
    (vi) Storage space should be provided for software programmes.

7.7 SUMMARY

- Communication is a process that involves a series of actions and a number of factors to transmit a message from one end to another.
- Sometimes the act of communication becomes difficult as there are many people talking to each other and in spite of talking loud to the extent of shouting the message may not reach the ears of the selected respondent.
- The process of communication has been best described by Roman Jacobson (1958). He has described the process with the help of two-layered model of communication in which the first layer describes the factors of communication and the second layer on the reverse describes the function of communication.
- On September 20, 2004, a geostationary satellite named EDUSAT was launched into space by India. It was equipped with KU-band and extended

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C-band transponders, each providing 6-7 national beams and 5 regional beams.

- Classroom teaching does not have much scope for auditory and oral experience. In order to overcome this problem, language laboratories have come into existence.
- E-learning is a flexible term which can be used to describe a means of teaching with the help of technology. E-learning is efficient as it eliminates distances and subsequent commutes.
- Using portable computing devices with wireless networks enables mobility and mobile learning, allowing teaching and learning to extend to spaces beyond the traditional classroom.
- Innovative technologies and delivery strategies are increasingly being used in order to meet the challenges of upgrading and updating knowledge and providing accessible learning opportunities through communications.
- Two-way video conferencing systems are generally instances of multipoint communications with facilities for exchanging visual as well as aural information among all participating locations.
- In audio-graphic conferencing, static visuals like graphics, pictures, photographs charts, etc., can also be exchanged in addition to audio through the same communication link.
- Audio conferencing can be thought of as extended telephone conversation, but instead of talking with only one person, you may be talking with several people, located at multiple sites (schools).
- Teleconferencing is essentially a means for communication and training. Teleconferencing can be used for dissemination of information, consultations with experts, guidance in response to policy, interviews, focused group discussions, etc.
- The age of computers is dawning in schools. It is taking over the world swiftly and surely. It is quite a jump from traditional teaching—reliance on textbooks—to the use of computers. Computers serve a dual purpose. They expose students to modern technology while inculcating in them a new and scientific approach to learning
- The basic objective of CML (Computer Managed Learning) is to relieve the teacher from these tedious time-consuming tasks so that he can more profitably utilize his time and energy for instructional work.
- Computer-assisted instruction (CAI) has a variety of software to facilitate teaching–learning situations. Drill may be stressed. Students need practice to review/embed what has been learned, otherwise retention may not last long.
- CAI may also provide problem solving experiences for students. Thus, a problem is presented on the screen of the microcomputer. The student using keys on the microcomputer types a related decision.

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- Additional uses for microcomputers include drill and practice, as well as simulations and games. Wright and Forcier listed the following criteria for software selection for drill and practice as well as simulations and games.
- The computer therefore is a medium or tool in the teaching/learning process. It is the teacher who decides which part of the curriculum the computer can handle.
- Controlled learning involves the use of interesting adaptive strategies. It includes both drill and practice. Drill and practice programmes are supplementary to the regular curriculum followed by the classroom teacher.

7.8 KEY WORDS

- **EDUSAT:** Also known as GSAT-3 was a communications satellite which was launched on 20 September 2004 by the Indian Space Research Organisation. EDUSAT is the first Indian satellite built exclusively to serve the educational sector.
- **Satellite:** In the context of spaceflight, a satellite is an object that has been intentionally placed into orbit.
- **Blended learning:** This is an approach to education that combines online educational materials and opportunities for interaction online with traditional place-based classroom methods. It requires the physical presence of both teacher and student, with some elements of student control over time, place, path, or pace.
- **Cognitive apprenticeship:** This is a theory that emphasizes the importance of the process in which a master of a skill teaches that skill to an apprentice. Constructivist approaches to human learning have led to the development of the theory of cognitive apprenticeship.
- **Teleconference:** A teleconference is the live exchange and mass articulation of information among several persons and machines remote from one another but linked by a telecommunications system.

7.9 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. Mention various factors in the process of communication.
2. What are the main functions of the EDUSAT?
3. What are the uses of teleconferencing at school level?
4. What are the various ways in which computers in education are used?

5. Which are the focal areas of Computer Management Support (CMS) to Teachers?
6. State the different types of CAI programmes.

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Long-Answer Questions

1. Discuss the role of communication process and programming in education in India.
2. Analyse critically how formal and non-formal education is being imparted through the satellite.
3. Discuss various uses of teleconferencing in education.
4. Analyse the specific uses of computers in education.

7.10 FURTHER READINGS

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UNIT 8 CONTINUING EDUCATION

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Structure

8.0 INTRODUCTION

Within a broad list of learning activities and programmes, continuing education is an all-encompassing term which consists typically of short or part-time courses. Many careers today require continuing education. In recent times, its scope has increased tremendously because it doesn't only gain new skills in preparation for a career change but also improve one's skills in a current job. Scholars and academics argue that even employers can achieve huge benefits if they promote continuing education in the workplace. Vocational education, open learning system, education for differently abled and lifelong education come under the umbrella of continuing education.

Basically, vocational education and training enables people at various ages and level to equip themselves with skills and competence which are needed in specific professions in the job market. Although the concept of vocational education has seen a long and gradually improving development, it is based on the apprenticeship system and in India, the same is imparted by institutes of technology/ polytechnic institutes especially established by both the public and private sector. Till recently, India had a very low built capacity for dispersing vocational training and to improve this scenario, the country has entered into collaboration with governments of other nations namely USA, the UK, Canada and others.

As kind of non-conventional education, open learning system removes all the barriers of education. One of the advantages of open learning system is that it moves away from whole-class instructions to differentiated activities. Then there is the issue of education for differently abled or special (or exceptional) children or

people. Initially emerged as a blend of informal, formal and non-formal education, lifelong education starts from birth and end at death.

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This unit introduces to you a comprehensive analysis of vocational education and training, open learning system, education of differently abled and lifelong education.

8.1 OBJECTIVES

After going through this unit, you will be able to:

- Explain the nature, scope and significance of vocational education
- Understand the characteristics and scope of open learning system
- Analyse education of the differently abled children
- Learn about the nature and role of lifelong education

8.2 VOCATIONAL EDUCATION

Let us begin our discussion by understanding the meaning and nature of vocational education.

8.2.1 Meaning and Nature of Vocational Education

According to the European Quality Assurance in Vocational Education and Training, 'Vocational education and training is that education and training which aims to equip people with knowledge, know-how, skills and/or competences required in particular occupations or more broadly on the labour market.'

The education mentioned in the above definition refers to one which prepares a person to effectively function in 'a trade, a craft, as a technician, or in professional vocations such as engineering, accountancy, nursing, medicine, architecture, or law'. The general traits of such type of education include: practical approach, undertaking of hands-on and manual activities, a traditionally non-academic outlook and mostly related to certain occupation or trade. Some other words which are often used as synonyms of vocational education are craft vocations, technical education and career education.

Vocational education is not specifically restricted to any particular stage of education. There are various levels in the educational system in which vocational education can be introduced — secondary, post-secondary, further education and higher education. Based on the apprenticeship system for which the person is being prepared, the level can be selected. While at the initial levels of education, vocational education can and is generally integrated with the mainstream classrooms, the vocational education that is imparted at the post-secondary level is imparted by extremely specialized trade, technical schools/institutes, community

colleges, colleges of further education, universities, Institutes of Technology/ Polytechnic Institutes.

Till some years back, vocational education was conducted in a classroom environment or on-the-job, with students learning trade skills and trade theory from accredited professors or established professionals. Now-a-days, there is a rising popularity of the form of vocational education that is imparted online, and with this form of learning disbursement, it has become possible for learn various soft skills and trade skills and from established professionals of an industry.

If we try and trace the origin and debate around vocational education, we need to mention Prussian philosopher Wilhelm von Humboldt who was among the first educationalist to differentiate between special (vocational) and general '*bildung*', which is essentially a term used to define education and the building of character and similar concepts. For him, education is more than just vocational training. He wrote to the Prussian king saying, 'There are undeniably certain kinds of knowledge that must be of a general nature and, more importantly, a certain cultivation of the mind and character that nobody can afford to be without. People obviously cannot be good craft-workers, merchants, soldiers or businessmen, unless, regardless of their occupation, they are good, upstanding and – according to their condition – well-informed human beings and citizens. If this basis is laid through schooling, vocational skills are easily acquired later on, and a person is always free to move from one occupation to another, as so often happens in life.' Later, the German philosopher Julian Nida-Rümelin criticized the discrepancies that existed between the European education policy and Humboldt's ideals, saying that the former only narrowly understood education as a preparation for the labour market. The concept of vocational education from apprenticeship to specialized institutions has seen a long and gradually improving development. In each country, it is approached from a different perspective.

8.2.2 Vocational Education in India

In India, the subject of vocational training is in the purview of the Ministry of Labour, several central ministries and organizations at the state-level. It was in 2013 that the National Skills Qualification Framework was created to harmonize the multiplicity and variations associated with costs and standards.

A competency-based framework, the National Skills Qualifications Framework (NSQF) organizes each qualification on the basis of a series of knowledge levels, skills and aptitudes. Graded 1 to 10, the levels have been defined as the learning outcomes that the learner must display irrespective of the learning having come from informal, non-formal or formal sources. It was on 27 December, 2013 that NSQF was notified in India. The other frameworks, including the NVEQF (National Vocational Educational Qualification Framework) released by the Ministry of HRD, stand superseded by the NSQF.

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The new Government that was formed in 2014, in November of the same year, set up the Misnistry of Skill Development & Entrepreneurship. Prime Minister, Narendra Modi, articulated the need for the ministry: 'A separate Ministry, which will look after promoting entrepreneurship and skill development, would be created. Even developed countries have accorded priority to promoting skilled manpower.'

To further the consolidation and harmonizing of the activities related to skill development all across the nation, on July 15, 2015, the 1st Skill India Development Mission (NSDM) was launched by the Government. The same day, the National Policy for Skill Development & Entrepreneurship was also launched.

Currently, each one of the various skill development efforts through the Government (Directorate General of Training) and through the Public Private Partnership (PPP) wing (National Skill Development Corporation) are carried out under the Ministry and under the umbrella of Skill India Mission.

The Ministry functions, for the implementation of the NSQF across all Government funded projects, with several other central departments and ministries as well as with the State governments. The scheme is based on a five-year implementation schedule to ensure full convergence.

With getting the private sector involved in different aspects of skill development, it has become possible to increase access, provide better quality, and ensure the creation of innovative financing models which have together enabled the implementation of sustainable skill development organizations on the ground. In the larger framework, skill development programmes which are of the short-term kind (mainly conducted by private organizations) along with the programmes of the long-term format (offered through Indian technical institutes (ITIs)) are now complementing one another. Credit equivalency, transnational standards, quality assurance and standards are being managed by the Ministry through the National Skill Development Agency (an autonomous body under the Ministry) in close partnership with industry-led sector-specific bodies (Sector Skill Councils) and various line ministries.

India has entered into bilateral collaboration with governments of other nations such as UAE, Canada, Germany, Australia and the UK, so that it can enforce standards that are globally acceptable and provide job mobility to the Indian workforce even overseas.

8.2.3 Importance Of Vocational Education

As its name itself suggests, the aim of a vocational course is to prepare students for being effective in particular trade, vocation or profession. Vocational courses are created specifically to cater to making students job-ready.

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In a vocational course, there is less traditional academic learning and a higher degree of practical hands-on training. Vocational training focuses on imparting skills and on skill application since these are the very foundation for shifting from academic education to a stable vocation/career.

Obtaining training in a specific vocation provides additional advantage while seeking a job, promotion, etc. In case the vocational training starts for students at the school level, then by the time they complete schooling, they will be ready for immediately attaining a high-paying, skilled job. A certificate from some independent body attesting to the holder of the certificate possessing the required skill for a specific profession will improve the certificate holder's employability.

Vocational certification enables a person to get employed earlier, and attain experience quickly both during the vocational training and employment. The ability of the person to start earning quickly also increases, putting the person with vocational training ahead of those who have not attained vocational education and training.

According to E. Ahamed, Minister of State for HRD and External Affairs, 'Of late, employability of graduates coming out of our educational system is becoming a matter of great concern. I am told only 25 per cent of the general graduates across all streams have employable skills'.

According to the World Economic Forum (WEF), the organized sector sees as low as 25 per cent of Indian professionals as being employable. This shows that there is need for good quality vocational education at all levels of education.

In India, Vocational Education and Training (VET) has become a major component of the country's education initiative. In order to ensure that vocational education is effectively implemented, is fruitful for the learners through the evolving national context and benefits India based on the demographic dividend, it has become urgently essential to modify the critical elements of vocational training and education. This is important so that vocational education has greater flexibility, inclusive and imparted in a creative manner. Knowing the key role that is played by vocational education, the Indian Government has implemented several initiatives.

Let us look at the need which has arisen for introducing vocational education.

In India, the structure of the education system in the present times is described in Figure 8.1.

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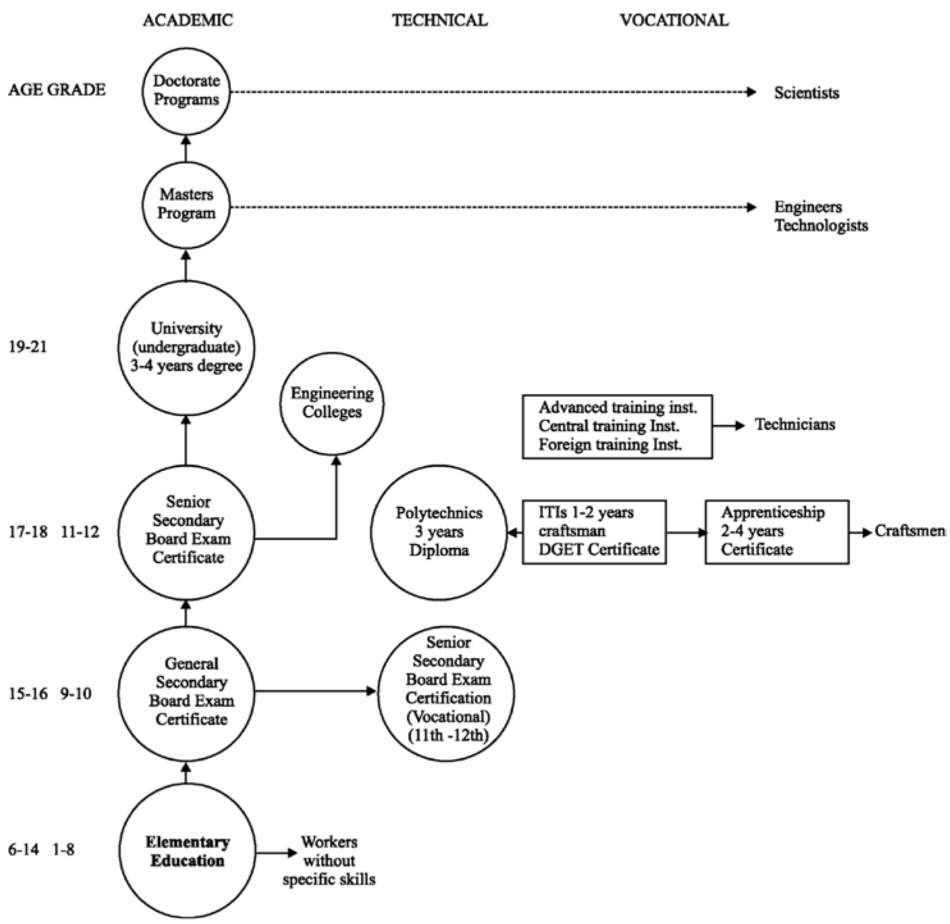


Fig. 8.1 *The Structure of the Education System in the Present Times*

There are two basic streams that can be used for the purpose of acquiring a skill—a large informal one and a small formal one. Table 8.2 provides details of major formal vocational education sources.

Table 8.2 *Sources of Major Formal Vocational Education*

Source of Education	Institute	Enrolment Capacity	Number of Institutions
Mainstream education system	Centrally sponsored scheme of vocationalisation of secondary education run by the ministry of human resource development	Enrolling less than per cent of students at the upper secondary level 3% (at the upper secondary level)	9,583 schools 150 educational courses 2 years duration
Training institutions outside the school and university systems	Industrial Training Institutes (ITSs) Industrial Training Centres (ITCs)	Total seating capacity of 7.8 lakh	5488 public (ITI) and private (ITC) institutions importing VET, of which 1922 are it is and 3566 are ITCs
Diploma level	Polytechnics	1,244 polytechnics run by MHRD with a capacity of over 2.95 lakhs	1,747 AICTE approved diploma programs with 294,370 seats

8.3 OPEN LEARNING SYSTEM

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'Openness' in terms of education has become an increasing feature of today's educational system. The notion of open education was reflected not only in the pedagogical styles adopted but in physical layout of the school building as a whole and of age related teaching areas in particular. The concept of open education refers to that kind of non-conventional education which has been weaning away from the conventional constraints that characterize the traditional school/college/university education. What makes an open education different from other form of education is its 'openness'. In an open education system, anyone can get education anytime. Thus, open education system removes all the barriers of education from its system. For instance, in an open school anyone who has either passed or failed in any class (suppose Eighth Standard) can directly get promoted to Ninth Standard without any prerequisite.

This change is of the kind that was experienced a few centuries ago when sectarian education yielded to liberal education. This change was essentially curriculum based. Now, liberal education is yielding to open education. This change is both curricular and organizational in nature.

8.3.1 Characteristics of Open Education

The various characteristics of open education are as follows:

- It does not operate through traditional conventions which are essentially restrictive in nature.
- There are restrictions in admission.
- In an open education system, there are restrictions on attendance.
- There are restrictions on the candidature for examinations.
- There are restrictions on the period of time to be devoted to a course.
- There are restrictions on the number of examinations given and taken in a year.
- There are restrictions on subject combinations for a particular degree.
- There are restrictions on the mode of didactic communication and the didactic task.

It should be clear to us that correspondence/distance education institutes may or may not be 'open' in the sense we have referred to above, or may be open only to a limited degree. And in the same way, even a traditional college/university may become open to a recognizable degree. Research programmes like MPhil and PhD may be put under this category. In what follows:

(a) We shall avoid using the expression correspondence education, unless we have to use it in a specific sense, and

(b) The expressions distance education and open education will be used synonymously. The distance mode allows the educational systems to be

open and the openness of the education system suits for the promotion of distance education.

8.3.2 Advantages of Open Education

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The advantages of open education are as follows:

- It develops a student's autonomy and responsibility.
- It maximizes space through shared areas.
- It moves away from whole-class instructions to differentiated activities.
- It supports team planning, team teaching and team assessing.
- It facilitates social learning and peer-group learning.
- It reduces resource duplication.
- It encourages cooperative work.
- It supports flexible group size and membership.
- It avoids feeling of insecurity and isolation.
- It facilitates the sharing of ideas by students and teachers.
- It facilitates consistent and supportive handling of difficult student by more than one teacher.

Relation between distance education and open education

The relationship between distance education and open education is that open education can be effected easily through distance education systems. On the other hand, advances in the practice of distance education help and encourage education to become more and more open. Naturally, the two go together, and therefore, there is a visible 'overlap'.

Check Your Progress

1. State the meaning of vocational education.
2. What is the concept of open learning system?
3. List some of the advantages of open education.

8.4 EDUCATION OF THE DIFFERENTLY ABLED CHILDREN

Plato stated more than 2000 years ago that 'no two persons are born exactly alike; but each differs from the other in natural endowments, one being suited for one occupation and the other for another.' Every individual inherits some abilities, and the abilities differ from one person to the other. So, in educational context, a teacher, or parent should know the abilities and decide the appropriate educational programme to help the child reach his full potential. Let us understand the role of natural endowments in special children.

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The developmental process of a child is continuous and complex and follows some well-defined principles that every child goes through. While going through this process, the child has to cross certain developmental milestones which he does according to his own pace and abilities.

The abilities or capacities, mainly depend on two factors: heredity and environment. Heredity includes the inherited traits from ancestors such as physical characteristics and intellectual abilities; and the environmental factors include home, school and community. Both these factors provide experiences and have pervasive influences on the all-round development of a child.

The children, who do not have any complications with respect to these factors, extend over the milestones, with appropriate skills at appropriate time. Their needs will be normal and normal settings are adequate for their nurturing and development. If the children have come across any complications during their developmental process, due to a hereditary predisposition or inadequate environmental influences, or from both causes combined, it affects their normal development. This may make them physically, mentally and emotionally disabled. They warrant special attention and if the needs are not met, behavioural disorders begin to develop and, if neglected for a long time, such disorders become potentially harmful to the individual himself and to the social group in which he lives as a contributor and participant.

Finally, no matter what the influential factors may be, we must know the characteristics and limitations of the group with which the individual in question is to be compared. A single English child in an Indian school is certainly exceptional in that particular setting, but if placed in a school in his country, he may merely be one of them. Hence, before we identify the exceptional we must know what is usual, not only within the population as a whole, but within the particular group in which the subject in question has chances to be placed.

According to the social theorists, Murray and Kluckhohn, 'Every man is in certain respects (a) like all other men, (b) like some other men, (c) like no other man'. Though we all belong to the same kind, everyone is unique. All individuals differ from one another in terms of their physical features, learning abilities and personality traits. The differences among most children are relatively small, but in some children the differences may be many.

To find the extent of difference one should define the norm. However, in some children, the difference from the norm is such that it is distinctly observable. The child, who is according to the norm, is called normal child and the one who is different from the norm is called exceptional child.

Normality is a comparative, not an absolute idea, and signifies conformity to the large number, which, after all, represents the characteristics that are 'typical', deviation from which makes the deviate non-typical. \

If the deviation of the children from the norm is very large then the children cannot be benefitted by the normal procedures; they require individualized

instruction programmes and related services to get fully benefitted. Such children are called exceptional children.

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The term exceptional children includes children who experience difficulties in learning as well as those whose performance is so superior that modifications in curriculum and instruction are necessary to help them fulfil their potential. Thus, exceptional children is an inclusive term that refers to children with learning and/or behaviour problems, children with physical disabilities or sensory impairments, and children who are intellectually gifted or have a special talent. The term 'a student with disabilities' is more restrictive than exceptional children because it does not include gifted and talented children.

Learning the standard definitions of related terms surely will help us understand the concept of exceptionality better.

According to the phraseology of a Connecticut General Statute, an exceptional school-child is 'one whose mental or physical personality deviates so markedly from the average standard as to cause a special status to arise with respect to his educational treatment and outlook'

According to Samuel A. Kirk, the most influential figure in special education, 'An exceptional child is he who deviates from the average or normal child in mental, physical and social characteristics to such an extent that he requires a modification of school practices or special educational services or supplementary instruction in order to develop to his maximum capacity.'

According to Telford and Sawrey, the pioneers of mental health, 'the term exceptional children refers to those children who deviate from the normal in physical, mental, emotional or social characteristics to such a degree that they require special social and educational services to develop their maximum capacity.'

Thus, it is clear that the exceptional child

- Deviates from the normal child
- Deviation can be in physical, emotional, mental or social
- Require special social services
- Require educational services

According to Crow and Crow, the popular population geneticist, 'The term exceptional is applied to a trait or to an individual possessing the trait if the extent of deviation from normal possession of that trait is so great that because of it the individual warrants or receives special attention from his fellows and his behaviour responses and activities are thereby affected.'

According to W.M. Cruichshank, 'An exceptional child is he who deviates physically, intellectually, emotionally and socially so markedly from normal growth and development that he cannot be benefited from a regular classroom programme and needs special treatment in school.'

From this definition, it is clear that the exceptional child

- Deviates from normal growth and development
- Deviates intellectually, emotionally and socially
- Cannot be benefited from a regular classroom programme
- Needs special educational programme

We can thus conclude that exceptional children can be distributed in three general classes:

(i) The children who stand at the extremes of some trait which all display to a greater or lesser degree.

(ii) The children who exhibit some outstanding peculiarity in which the normal do not share at all or, at most, only to a minimal degree.

(iii) The children who show very unusual combinations of mental traits.

8.4.1 Objectives of Special Education

With the concept of democracy and the ideals of compulsory universal education, all children present themselves for education. The curriculum followed in mainstream schools is designed keeping in view the large number of normal children and their characteristics.

Some children who deviates a little from these children, such as slight deafness, blindness, dullness, etc., can reasonably be well taught with the group, with some additional provisions. Additional provisions like the child of defective vision or hearing can be seated close to the blackboard or to the teacher, the crippled child gets assistance while coming to school and the like. But there are some exceptional children like totally deaf, totally blind or mentally retarded, ought not, or in spite of supplementary assistance cannot, be educated along with the normal group. The totally blind child can under no circumstances use the book which forms the medium of instruction, and the totally deaf child is also at a disadvantage. The extraordinarily well-endowed child should not be deprived of the opportunity and stimulus to develop to his highest capacity. They need a totally different kind of education.

These children must be educated in an entirely different manner, one adapted to their varying handicaps or advantages. They require special attention and have special educational needs and it is an impossible practice to subject them to the normal curriculum. And yet they cannot be disregarded. A special educational system is adapted to fit these children and provide necessary support to maximize their potential and enhance their self-esteem, called 'Special Education'.

Special Education refers to the specifically designed instruction to meet the special needs of exceptional children. It adheres to the philosophy that each individual with a disability is entitled to provide learning opportunities and materials appropriate to their interests and abilities. It involves designing the physical environment in the classroom, teaching procedures, teaching content and equipment

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for a particular type of disability. As a result, to help the exceptional children, the objectives of special education for exceptional children can be stated as:

- To recognize and respond to all learners with special needs and attributes, i.e., the gifted, the disabled, the deprived and the disordered.
- To encourage exceptional children in knowing and accepting themselves with their deficiencies or capacities.
- To help exceptional children in realizing their abilities and capacities to the maximum extent possible.
- To help exceptional children in their adjustment to their self and the environment.
- To provide educational opportunities to every exceptional child irrespective of his limitations or strengths.
- To provide appropriate educational, individual and vocational guidance to the exceptional children for their adequate adjustment, development and education.
- To help the exceptional children acquire the necessary skills for their self-help and independent living.
- To help exceptional children to acquire necessary social skills, emotional literacy to live and participate in school, home and community life as properly as possible.
- To provide activities that foster social development and, to the maximum extent possible, assimilation into regular school and community activities.
- To provide adequate learning experiences to exceptional children with a flexible curriculum.
- To provide the educational training to exceptional children by the use of materials, methods, techniques, aids and equipment, etc. In accordance with the nature of their exceptionalities.
- To arrange guidance services for the parents with an eye to extend their cooperation in the education and adjustment of exceptional children.
- To encourage exceptional children in seeking support services from experts like special education teachers, special education experts, psychologists, therapists, medical professionals, speech and language pathologists, social workers, etc.
- To help exceptional children in their successful transition from school to community.
- To provide vocational and employment oriented training for being adjusted in the world of occupation.
- To help the exceptional children in bringing up an all-round development.
- To change the attitude of the society at large towards the exceptional children and identifying their needs.

- To utilize the contributions of exceptional children for the progress of the country and in turn increase their self-esteem and status in society.

Check Your Progress

4. What does the term 'exceptional child' refer to?
5. What do you mean by 'Special Education'?

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8.5 LIFELONG EDUCATION: AN OVERVIEW

Education is a continuous process as it starts from womb to tomb. It helps in gaining new learning experiences. Life is full of learning experiences as we learn many things in our life consciously or unconsciously. We keep on learning and training ourselves throughout our lives. Our surroundings mould our behaviour, our concept of life and the content of our knowledge. Education is perceived as an essential part of life and all the institutes of society with an educative potential are means for learning. It is that educational process by which people become more knowledgeable in their awareness and skills so that they gain more control over their environment.

In recent times, lifelong education is viewed as a process that continues in one form or another throughout life. It is adapted by the individual according to his purpose and needs at different stages in their development. It can be provided through various modes like distance learning, e-learning, continuing education or correspondence courses.

The concept of lifelong education has been under the process of continuous change because of increased duration of formal education and insufficiency of skills attained in schooling for future career and success. It was initially emerged as a blend of informal, formal and non-formal education with the aim of improvement in quality of life but now the concept covers all times and all places, starting from birth and ending at death. It is a concept that claims it is never too late for learning. It is an attitude of openness to new ideas, decisions, skills and behaviours. One can be provided with learning opportunities at all ages and levels in various context.

Lifelong learning

Many authors around the world use learning and education interchangeably. Dave (1976, pp. 35-36) states that lifelong education seeks to view education in its totality. "… It is a process of accomplishing personal, social and professional development throughout the life span". Therefore, it is to be incorporated in every dimension of society. Lifelong learning is conducted beyond school and is the broad term for education. It is completely self-motivated therefore it's voluntary, rather than enforced, and it is done for personal or professional development.

There are a variety of ways to conduct lifelong learning. It can be through formal training, or something far less organized. It can be taken through instruction

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or coaching, but the term also includes any form of self-taught learning. Even our daily interactions with our colleagues, with our environment and the knowledge and behaviours we learn both inside and outside of work, can be called as lifelong learning.

Examples of lifelong learning

Some examples of lifelong learning comprise:

- Vocational courses
- Studying a new subject
- Adding to your skillset during employment
- Internships and apprenticeships
- Gaining knowledge and learned behaviors from your environment
- Playing a new game or sport
- Learning to use new pieces of technology
- Teaching yourself a new language

However, any attempts to actively build your skills will generally fall under the category of lifelong learning.

The benefits of lifelong learning

There are a number of advantages to this form of studying. These are as follows:

(i) To add to your transferable skills
(ii) To earn more money
(iii) To broaden your knowledge
(iv) Mental stimulation
(v) To gain a new qualification
(vi) Personal and professional satisfaction
(vii) To better contribute to the community
(viii) To fill a skills gap
(ix) To increase your employability and promotion prospects

The importance of lifelong education

As workplaces become increasingly diverse and complex, more and more employers are realizing that formal qualifications aren't the only way to identify desirable staff.

- Lifelong learning also ensures their employees to continue to develop, and shows their desire to grow on a professional level.
- The knowledge gained through previous experience as well as any skills which have been self-taught or learned along the way could greatly benefit.

Check Your Progress

6. What is the concept of lifelong education?
7. What are the main benefits of lifelong education/learning?

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8.6 ANSWERS TO CHECK YOUR PROGRESS QUESTIONS

1. According to the European Quality Assurance in Vocational Education and Training, 'Vocational education and training is that education and training which aims to equip people with knowledge, know-how, skills and/or competences required in particular occupations or more broadly on the labour market.' The education mentioned here refers to one which prepares a person to effectively function in 'a trade, a craft, as a technician, or in professional vocations such as engineering, accountancy, nursing, medicine, architecture, or law'. The general traits of such type of education include: practical approach, undertaking of hands-on and manual activities, a traditionally non-academic outlook and mostly related to certain occupation or trade. Some other words which are often used as synonyms of vocational education are craft vocations, technical education and career education.
2. 'Openness' in terms of education has become an increasing feature of today's educational system. The notion of open education was reflected not only in the pedagogical styles adopted but in physical layout of the school building as a whole and of age related teaching areas in particular. The concept of open education refers to that kind of non-conventional education which has been weaning away from the conventional constraints that characterize the traditional school/college/university education. What makes an open education different from other form of education is its 'openness'. In an open education system, anyone can get education anytime. Thus, open education system removes all the barriers of education from its system. For instance, in an open school anyone who has either passed or failed in any class (suppose Eighth Standard) can directly get promoted to Ninth Standard without any prerequisite.
3. Some of the advantages of open education are as follows:
   - It develops a student's autonomy and responsibility.
   - It maximizes space through shared areas.
   - It moves away from whole-class instructions to differentiated activities.
   - It supports team planning, team teaching and team assessing.

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- It facilitates social learning and peer-group learning.
- It reduces resource duplication.
- It encourages cooperative work.

4. According to Samuel A. Kirk, the most influential figure in special education, 'An exceptional child is he who deviates from the average or normal child in mental, physical and social characteristics to such an extent that he requires a modification of school practices or special educational services or supplementary instruction in order to develop to his maximum capacity.' Telford and Sawrey, the pioneers of mental health, stated, 'the term exceptional children refers to those children who deviate from the normal in physical, mental, emotional or social characteristics to such a degree that they require special social and educational services to develop their maximum capacity.'
5. There are some exceptional children like totally deaf, totally blind or mentally retarded, ought not, or in spite of supplementary assistance cannot, be educated along with the normal group. The totally blind child can under no circumstances use the book which forms the medium of instruction, and the totally deaf child is also at a disadvantage. The extraordinarily well-endowed child should not be deprived of the opportunity and stimulus to develop to his highest capacity. They need a totally different kind of education. These children must be educated in an entirely different manner, one adapted to their varying handicaps or advantages. They require special attention and have special educational needs and it is an impossible practice to subject them to the normal curriculum. And yet they cannot be disregarded. A special educational system is adapted to fit these children and provide necessary support to maximize their potential and enhance their self-esteem, called 'Special Education'.

   Special Education refers to the specifically designed instruction to meet the special needs of exceptional children. It adheres to the philosophy that each individual with a disability is entitled to provide learning opportunities and materials appropriate to their interests and abilities. It involves designing the physical environment in the classroom, teaching procedures, teaching content and equipment for a particular type of disability.
6. In recent times, lifelong education is viewed as a process that continues in one form or another throughout life. It is adapted by the individual according to his purpose and needs at different stages in their development. It can be provided through various modes like distance learning, e-learning, continuing education or correspondence courses. The concept of lifelong education has been under the process of continuous change because of increased duration of formal education and insufficiency of skills attained in schooling for future career and success. It was initially emerged as a

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blend of informal, formal and non-formal education with the aim of improvement in quality of life but now the concept covers all times and all places, starting from birth and ending at death. It is a concept that claims it is never too late for learning.

7. There are a number of advantages to lifelong learning. These are as follows:
   (i) To add to your transferable skills
   (ii) To earn more money
   (iii) To broaden your knowledge
   (iv) Mental stimulation
   (v) To gain a new qualification
   (vi) Personal and professional satisfaction

8.7 SUMMARY

- According to the European Quality Assurance in Vocational Education and Training, 'Vocational education and training is that education and training which aims to equip people with knowledge, know-how, skills and/or competences required in particular occupations or more broadly on the labour market.'
- Till some years back, vocational education was conducted in a classroom environment or on-the-job, with students learning trade skills and trade theory from accredited professors or established professionals.
- It was in 2013 that the National Skills Qualification Framework was created to harmonize the multiplicity and variations associated with costs and standards.
- To further the consolidation and harmonizing of the activities related to skill development all across the nation, on July 15, 2015, the 1st Skill India Development Mission (NSDM) was launched by the Government.
- With getting the private sector involved in different aspects of skill development, it has become possible to increase access, provide better quality, and ensure the creation of innovative financing models which have together enabled the implementation of sustainable skill development organizations on the ground.
- A nationalized qualification framework for the certification of vocational related education and activities is important for establishing a standard for qualifications that must be met by the vocational educational sector in the country.
- The basis for NVQF is going to be the nationally recognized occupational standards having details of each of the activities which need to be performed by a worker for the specific competency standard or occupation.

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- The notion of open education was reflected not only in the pedagogical styles adopted but in physical layout of the school building as a whole and of age related teaching areas in particular.
- What makes an open education different from other form of education is its 'openness'. In an open education system, anyone can get education anytime.
- It should be clear to us that correspondence/distance education institutes may or may not be 'open' in the sense we have referred to above, or may be open only to a limited degree. And in the same way, even a traditional college/university may become open to a recognizable degree.
- The relationship between distance education and open education is that open education can be effected easily through distance education systems.
- Plato stated more than 2000 years ago that 'no two persons are born exactly alike; but each differs from the other in natural endowments, one being suited for one occupation and the other for another.'
- The developmental process of a child is continuous and complex and follows some well-defined principles that every child goes through. While going through this process, the child has to cross certain developmental milestones which he does according to his own pace and abilities.
- If the children have come across any complications during their developmental process, due to a hereditary predisposition or inadequate environmental influences, or from both causes combined, it affects their normal development.
- If the deviation of the children from the norm is very large then the children cannot be benefitted by the normal procedures; they require individualized instruction programmes and related services to get fully benefitted. Such children are called exceptional children.
- According to the phraseology of a Connecticut General Statute, an exceptional school-child is 'one whose mental or physical personality deviates so markedly from the average standard as to cause a special status to arise with respect to his educational treatment and outlook'
- But there are some exceptional children like totally deaf, totally blind or mentally retarded, ought not, or in spite of supplementary assistance cannot, be educated along with the normal group. The totally blind child can under no circumstances use the book which forms the medium of instruction, and the totally deaf child is also at a disadvantage.
- Special Education refers to the specifically designed instruction to meet the special needs of exceptional children. It adheres to the philosophy that each individual with a disability is entitled to provide learning opportunities and materials appropriate to their interests and abilities.

- As workplaces become increasingly diverse and complex, more and more employers are realizing that formal qualifications aren't the only way to identify desirable staff.

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8.8 KEY WORDS

- **Bildung:** The word 'bildung' refers to the German tradition of self-cultivation, wherein philosophy and education are linked in a manner that refers to a process of both personal and cultural maturation.
- **WEF:** The World Economic Forum (WEF), based in Cologny-Geneva, Switzerland, was founded in 1971 as a not-for-profit organization. It was granted "other international body" status in January 2015 by the Swiss Federal Government under the Swiss Host-State Act.
- **NIOS:** The National Institute of Open Schooling (NIOS), formerly National Open School, is the board of education under the Union Government of India.
- **Non-conventional education:** It provides opportunities for individuals to continue their educational path without the confines of a classroom and curriculum.
- **Mental health:** Mental health is the level of psychological well-being or an absence of mental illness. It is the state of someone who is "functioning at a satisfactory level of emotional and behavioural adjustment".

8.9 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. How is vocational education imparted in India?
2. What are the government's initiatives for skill development in India?
3. Why do we witness a growing importance of vocational education?
4. What makes an open education different from other forms of education?
5. Write a short note on the objectives of special education for exceptional children.
6. How is lifelong education conducted?

Long-Answer Questions

1. Discuss the nature and scope of vocational education in India.
2. Analyse critically the various problems in the current system of vocational education and training in India.

3. Discuss the various characteristics of open education.
4. Examine the importance of education for differently abled children.

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8.10 FURTHER READINGS

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BLOCK - III
COMMUNITY EDUCATION AND NATIONAL POLICIES

UNIT 9 EDUCATION OF MINORITY COMMUNITY

Structure

9.0 INTRODUCTION

The central government in 2019 has announced scholarships for five crore students from minority communities, including 50 per cent girls, to be given in the next five years. The scholarships have been provided for pre-matric, post-matric and professional and technical course studies. To ensure socio-economic-educational empowerment of minorities especially girls through '3Es- Education, Employment and Empowerment', various scholarships including pre-matric, post-matric, merit-cum-means and so forth will be provided to five crore students in the next five years. The 'Padho-Badho' awareness campaign have been launched across the country to encourage education, especially among girls from minority communities from those areas where people do not send their children to schools due to socio-economic reasons.

9.1 OBJECTIVES

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After going through this unit, you will be able to:

- Describe the education of minority community with reference to their aims and objectives, method and problems
- Discuss educational finances for quality improvements through MHRD, UGC, NIEPA, NAAC, NCTE, RCI, AICTE, and NCERT

9.2 EDUCATION OF MINORITY COMMUNITY WITH REFERENCE TO THEIR AIMS AND OBJECTIVES, METHOD AND PROBLEMS

To understand the education of socially and culturally disadvantaged, it is important to first know the meaning of 'child belonging to disadvantaged group'. Section 2(d) in The Right of Children to Free and Compulsory Education Act, 2009 can be helpful in this case. The Section defines 'child belonging to disadvantaged group' means a child belonging to the Scheduled Caste, the Scheduled Tribe, the socially and educationally backward class or such other group having disadvantage owing to social, cultural, economic, geographical, linguistic, gender or such other factor, as may be specified by the appropriate Government, by notification.

The Census 2011 brings to the surface the differences between the educational achievements of the whole nation, compared to the socially and culturally disadvantaged. For example, the national literacy rate is around 73 per cent, where the literacy rate for SC and ST stand around 66.1 and 59 per cent respectively. When the factor of gender is brought into question, the Census shows that the literacy among males is around 80.9 compared to the 64.6 per cent for women. When gender literacy rate is seen for SCs and STs, we can see that the compared to the national literacy rate for male 80.9 per cent, only 75.2 and 68.5 per cent male are literate, whereas amongst females, the literacy rate stands at 56.5 for SCs and 49.4 for STs compared to the national rate of 64.6 per cent.

When dropout rates are compared, the inequalities seem more prominent. At the primary level, the dropout rate in total is 4.34 per cent compared to 4.14 per cent and 7. 98 per cent for SCs and STs respectively. At the secondary level, the drop rate for total, SCs and STs stand at 17.86, 18.66 and 27.20 per cent respectively. At the senior secondary level, this data corresponds to 1.54 per cent for the total, 1.81 for SCs and 2.94 for STs.

The education system cannot work independently, apart from the society it is present in. India is a diverse nation. It is rich in linguistics, ethnic and social diversity. And the education system cannot be said to be successful unless all the constituents of the population progress together.

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Significance of education of socially and culturally disadvantaged groups can be understood by the following:

- It is important for establishing an egalitarian society.
- The success of the democracy rests in the education and improvement of the entire population of the democracy.
- Education of socially and culturally disadvantaged will act as a catalyst in improving the economic and social condition of the country.
- Education of the marginalized will improve the human development in the nation and better standards of living.
- It will bridge the gap between the skilled manpower needs and the available manpower possessing those skills.

Equality of Educational Opportunity is an essential element of any progressive, developed and egalitarian society. There are several steps and processes which are chronologically devised and practiced to ensure the maximum possible implementation of this objective. Many nations across the globe have endeavoured to minimize inequality of educational opportunities and have achieved considerable success. In India, there are several norms at various levels and efforts have been made to ensure equal educational opportunities to all its citizens. Yet, the gaps still exist and agencies have to rework their strategies to minimize the levels of inequality of educational opportunities. The first among the approaches of ensuring equality of educational opportunities are the Constitutional provisions which dictate zero discrimination in any walk of life.

Some of these are given hereunder:

- **Article 21 (A):** The 93rd Amendment Act of the Constitution declares, 'The State shall endeavour to provide free and compulsory education to all children of the age six to fourteen years in such manner as the state may, by law, determine.' Thus, it provides equal opportunity to all primary education for all children.
- **Article 29:** Any section of the citizens having a distinct language, script or culture of its own shall have the right to conserve the same. All minorities whether based on religion or language can establish and administer educational institutions of their choice. No citizen can be denied admission in an institution aided fully or partly by the State, on grounds only of religion, race, caste, language or any of them.
- **Article 41:** The State shall endeavour to secure to its citizens the right to education. This Article has given a sound platform for the Right of Children for Free and Compulsory Education popularly known as the Right to Education Act.
- **Article 46:** The State shall promote the educational and economic interests of the weaker sections of the people, particularly Scheduled

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Castes and Scheduled Tribes and shall protect them from social injustice and all forms of exploitations.

Apart from the constitutional opportunities, several other means are being adopted to achieve equality of educational opportunity. The foremost among them is the launch of a special admission drive with the help of primary school teachers. This is done once a year during the admission season which is March-April in our country. As per the directive, teachers of primary schools visit areas around the school to identify and fetch all non-school going children to school. After the implementation of the Right of Children to Free and Compulsory Education Act, 2009; the successive governments have taken vigorous steps to widen the network of schools across the country. The Act provides for an elementary school education to children living within one kilometre radius of the school and secondary school education to those living within three kilometres radius of the school.

Several policies have been put in to practice to generate students' interest in school and to make them comfortable in the school environment. Mid-Day Meal and Attendance Stipend are two such initiatives which have yielded commendable results. The Mid day meal scheme was launched on 15 August 1995 across 2408 blocks of the country as a Centre sponsored scheme. Later it was expanded in all blocks of the country and for all schools. This scheme has helped to ensure the presence of students for the whole day and improved their health along with raising their interest in education as such. Daily Stipend or Attendance Allowance is another such scheme which promotes education among students as well as ensuring cent-per cent attendance in schools. Though this scheme is not a widely practiced one but its results are undoubtedly encouraging.

Besides these, there are schemes for providing free amenities to school going children in order to equip them for attaining equitable learning. This includes issuance of free textbooks, uniforms, stationery, incentives and scholarships. The free textbook programme distributes a set of three books and covers children from Scheduled Castes and Other Backward Castes. Unstitched material for school uniforms is distributed to girls from scheduled castes. All children from Scheduled Castes qualify for a stationery allowance and girls from Scheduled Castes are paid an attendance allowance as well. Though these schemes vary from state to state but, there is no doubt that these are decreasing students economic disparities and ensuring equal educational opportunities to the children from socially and economically weak backgrounds.

There is a provision of residential schools for students in backward areas. Various state governments have facilitated such schools at designated locations. As per official data from the Social Welfare Department of various states such schools are in vogue and quite popular among the learners. Recently, the governments of Maharashtra and Odisha have announced considerable increase in the number of such schools in their states. In the hilly areas of Himachal Pradesh

and Uttrakhand, one teacher schools are fulfilling needs of small villages and distant localities. Through these endeavours it is evident that provisions for equal educational opportunities can be successfully implemented through well-conceived plans and policies.

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Strategies to Improve Educational Facilities

There have been several plans and policies to ensure equality of educational opportunity since the inception of the formal school system in the country. Since independence, successive governments have paid due attention towards ensuring education for all without any discrimination or deterrence. These efforts have yielded admirable results; yet, we must go a long way before every child of school going age is brought under the fold of such plans. The National Policy of Education, 1986 has presented a consolidated record of all the provisions taken or to be taken to achieve the goal of providing equal educational opportunities. A record of the same is presented in Part IV of the policy entitled Education for Equality. There are 14 points in this part which are mentioned as disparities in the policy.

The text of Part IV of the NPE, 1986 is mentioned hereunder:

Disparities, Part IV of the NPE, 1986

The new Policy will lay special emphasis on the removal of disparities and to equalize the educational opportunity by attending to the specific needs of those who have been denied equality so far.

1. Education for Women's Equality

Education will be used as an agent to bring about basic change in the status of women. In order to neutralize the accumulated distortions of the past, there will be a well-conceived edge in favour of women. The National Education System will play a positive, interventionist role in the empowerment of women. It will foster the development of new values through redesigned curricula, textbooks, the training and orientation of teachers, decision-makers and administrators, and the active involvement of educational institutions. This will be an act of faith and social engineering. Women's studies will be promoted as a part of various courses and educational institutions will be encouraged to take up active programmes to further women's development.

The removal of women's illiteracy and obstacles inhibiting their access to, and retention in, elementary education will receive overriding priority, through provision of special support services, setting of time targets, and effective monitoring. Major emphasis will be laid on women's participation in vocational, technical and professional education at different levels. The policy of non-discrimination will be pursued vigorously to eliminate sex stereotyping in vocational and professional courses and to promote women's participation in non-traditional occupations, as well as in existing and emergent technologies.

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2. Education of Scheduled Castes

The central focus in the SCs educational development is their equalization with the non-SC population at all stages and levels of education, in all areas and in all the four dimensions—rural male, rural female, urban male and urban female.

The measures contemplated for this purpose include the following:

- Incentives to indigent families to send their children to school regularly till they reach the age of 14.
- Pre-matric Scholarship scheme for children of families engaged in occupations such as scavenging, flaying and training to be made applicable from Class I onwards. All children of such families, regardless of incomes, will be covered by this scheme and time-bound programmes targeted on them will be undertaken.
- Constant micro-planning and verification to ensure that the enrolment, retention and successful completion of courses by SC students do not fall at any stage, and provision of remedial courses to improve their prospects for further education and employment.
- Recruitment of teachers from Scheduled Castes.
- Provision of facilities for SC students in students hostels at district headquarters, according to a phased programme.
- The utilization of Jawahar Rozgar Yojana resources so as to make substantial educational facilities available to the Scheduled Castes (this has been subsumed under NREGS); and
- Constant innovation in finding new methods to increase the participation of the Scheduled Castes in the educational process.

3. Education of Scheduled Tribes

The following measures will be taken urgently to bring the Scheduled Tribes on par with others:

- Priority will be accorded to opening primary schools in tribal areas. The construction of school buildings will be undertaken in these areas on a priority basis under the normal funds for education, as well as under the Jawahar Rozgar Yojana, Tribal Welfare schemes and so forth.
- The socio-cultural milieu of the STs has its distinctive characteristics including, in many cases, their own spoken languages. This underlines the need to develop the curricula and devise instructional materials in tribal languages at the initial stages, with arrangements for switching over to the regional language.
- Educated and promising Scheduled Tribe youths will be encouraged and trained to take up teaching in tribal areas.

- Residential schools, including Asharam Schools, will be established on a large scale.
- Incentive schemes will be formulated for the Scheduled Tribes, keeping in view their special needs and life styles. Scholarships for higher education will emphasize technical, professional and para-professional courses. Special remedial courses and other programmes to remove psycho-social impediments will be provided to improve their performance in various courses.
- Anganwadis, Non-formal and Adult Education Centres will be opened on a priority basis in the areas predominantly inhabited by the Scheduled Tribes.
- The curriculum at all stages of education will be designed to create an awareness of the rich cultural identity of the tribal people as also of their enormous creative talent.

4. Other Educationally Backward Sections and Areas

Suitable incentives will be provided to all educationally ward sections of society, particularly in the rural areas hill and desert districts, remote and inaccessible areas and islands will be provided adequate institutional infrastructure.

5. Minorities

Some minority groups are educationally deprived. Greater attention will be paid to the education of these groups in the interests of equality and social justice. This will naturally include the Constitutional guarantees given to them to establish and administer their own educational institutions, and protection to their languages and culture. Simultaneously, objectivity will be reflected in the preparation of textbooks and in all school activities and all possible measures will be taken to promote an integration based on appreciation of common national goals and ideals, in conformity with the core curriculum.

6. Handicapped

The objective should be to integrate the physically and mentally handicapped with the general community as equal partners, to prepare them for normal growth and to enable them to face life with courage and confidence.

The following measures will be taken in this regard:

- Wherever it is feasible, the education of children with motor handicaps and other mild handicaps will be common with that of others.
- Special schools with hostels will be provided, as far as possible at district headquarters, for the severely handicapped children.
- Adequate arrangements will be made to give vocational training to the disabled.

- Teachers' training programmes will be reoriented, in particular for teachers of primary classes, to deal with the special difficulties of the handicapped children; and
- Voluntary effort for the education of the disabled will be encouraged in every possible manner.

Problems in Education of Socially and Culturally Disadvantaged

Educational inequality is one of the main causes of poverty, backwardness and underdevelopment in the world. Education is an important tool to evade unemployment and ensure economic independence among individuals. There are various causes of inequality in different parts of the world but upon broad examination of the causes of educational inequality it is found that several causes are common to all nations and continents. These are economic disparities, racial discrimination, gender differences, unemployment, poor educational infrastructure, traditional or unscientific teaching-learning approaches, substandard teacher education and inappropriate educational administration.

Inequality is prevalent in nature as one of its basic elements. There are no rules of similarity among the creations of nation. Every being is unique and as such there are no rules of equity or sameness in nature. If there is any sameness or resemblance in the nature; it is merely a case of coincidence. In fact, uniqueness or exclusivity is the thumb rule of nature. The same rule is applicable for us humans as well. No two persons are or can be absolutely similar, though we may find one or more similarities between two people's personalities. Yet, this must be seen as a unique case and not as standard nature.

Among humans there are a multitude of visible and palpable differences owing to a variety of reasons. These dissimilarities may be manifest in their lives, culture, living standard and stage of development in various forms. Mentioned underneath are some of the causes which result in inequality of educational opportunities in India:

- Non-availability of schools in close vicinity. As per the rules laid in the RTE Act, 2009, there must be a primary school within the radius of one kilometre and a secondary school with in the diameter of three kilometres.
- The poverty of large sections of the population. India's graph on poverty parameters is still deplorable. As per the recent data of the Reserve Bank of India 2017, 31.2 per cent population of India still live below the poverty line. These people do not have sufficient means to support their life; education is naturally a distant dream for them.
- Differences in the amenities and standards of educational institutions. There are various types of schools starting from affluent to indigent ones. This gap among the standards of schools is evident of the vast difference in the equality of educational opportunity to all.

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- The wide disparity between the educational preferences of boys and girls in the families; especially in the rural, tribal, hilly and desert belts.
- The wide gaps of educational development between the poor and prosperous classes of the society. The same also applies in the teaching-learning conditions, availability of facilities and study material. All these play a major role in the academic achievement of the individuals.

The educational backwardness among the SCs/STs is due to social and economic deprivation. The educational standard of these classes is already low which is one of the prominent causes of indifference towards education. This creates a vicious circle of poverty, illiteracy and unemployment.

Besides the reasons cited above and economic backwardness and several other factors including social and psychological restraints, inadequate facilities at home and passive attitudes of the teachers to the educational progress of learners from backward communities also play a major role in causing an inequality of educational opportunities in India.

Check Your Progress

1. Mention any two schemes launched by the Indian government to generate interest of students in schools.
2. What is the main objective of the 'Beti Bachao Beti Padhao' scheme?

9.3 EDUCATIONAL FINANCE FOR QUALITY IMPROVEMENTS

There is a very thin line which separates education finance from economics of education and education law. As a concept, educational finance is concerned with the income and expenditure of educational institution administrators. Ogbonnaya (2000) described education finance as the process by which tax revenues and other resources are derived for the establishment and operation of educational institutions as well as the process by which these resources are allocated to institutions in different geographical areas. Here the authorities of educational institutions include educational managers and in-charges of Nursery, Kindergarten, Primary, Secondary and Tertiary Institutions. They also include educational managers and chief executives of the Central and State Ministries of Education, agencies and other statutory bodies. This group has a lot of heterogeneity in the sense that all of them work differently with regard to the magnitude of the areas and population which they administer, the range of functions which they exercise, the methods of obtaining income, the objects of their expenditure and their financial relations with other public authorities. The scope of education finance includes the areas of education finance, which has been limited in the following points:

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1. Financial concepts like cash management, interest, authority to incur expenditure, payment vouchers, financial control, finance virement and bank statements
2. Problems in funding educational programmes
3. Budget
4. Role of government and non-government agencies in educational funding
5. Taxation
6. Sources of funds
7. Classification of government expenditure
8. Types of cost analysis, namely, current versus capital cost, recurrent and capital expenditure

Reasons for Interest of Educational Personnel in Educational Finance

Educational finance as a term may sound to be of interest to educational policy makers. However, every prospective educational administrator should be interested in the study of education finance. Reasons for the same have been discussed in the following points:

1. The knowledge pertaining to educational finance enables administrators understand financial concepts and terminologies. This would give administrators an upper hand when dealing with certain financial issues and concerns. This would also give them a confidence to apply these terminologies in routine administrative tasks.
2. The knowledge of education finance would enable practitioners to keep proper record of their expenses and expenditures.
3. Education finance helps provide sufficient information to the Vice Chancellor, Polytechnics' Rectors and the various Provosts on the time to apply for grants, the situation to seek financial assistance and the capital projects that are suitable for one's requirements.
4. The knowledge pertaining to educational finance helps administrators know when to renovate rundown equipment, employ staff distribution funds and allocate equipment.
5. If there is little or no knowledge pertaining to educational finance, administrators might recruit more staff than required and may not renovate rundown equipment whenever required.
6. The proper knowledge of the principles and techniques of education finance would equip the educational administrator with the ability to dictate fraud and other wrongdoings effectively.

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Sources of Educational Finance

Expenditures on education are made by both the governmental and the non-governmental sectors. However, it is important to highlight the dominant role of the government in respect of its financing. Since education has been regarded as a 'public good,' the intervention of the state in matters of its financing is necessary. There are other characteristics of education which impinge the government on investment considerations. These include the following:

(i) Consumer ignorance

(ii) Technical economies of scale

(iii) Externalities in production and consumption

(iv) Inherent imperfections in the market like absence of credit market institutions for financing education

Every country has its own set of characteristics which determine the sources of educational finance in that set up. In India, two of the overpowering characteristics are as follows:

(i) Majority of its population resides in rural areas

(ii) There is a very high proportion of children and 'youth' population. The demands are different at every level:

- Children from poor/rural families require promotion of free and easily accessible facilities for elementary education
- The youth population requires facilities for specialized training for skill development

These needs are dual as there is a fair agreement on the fact that a minimum of eight years of schooling is required before entering any kind of specialized training. Further, the establishment of educational/training facilities requires huge funds. The government is experiencing fiscal pressures leading to resource constraint; so a need is felt to encourage the participation/investment of the private sector at all levels of education. As the economic status of a country changes from the developing to the developed, the underlying considerations in the matter of establishing and financing the educational facilities will also change. This comes about partly by increased awareness of the people about the importance of education and partly by the higher ability of the persons to afford the cost of education. In the meantime, the considerations for achieving the needed balance between the public and the private sector investment in the education sector along with the issue of subsidy need to be guided by factors like the socio-economic layers of the society, demographic features and demand for elementary versus higher educational facilities.

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The involvement of private sector in elementary education in India is limited. Even where it is there, it is mostly with budgetary support by the government in the form of grants, both explicit as well as implicit. It is important to recognize that in respect of elementary education (classes I to VIII in the Indian context), the 'social benefits' are larger than the 'private benefits.' This is a factor which calls for greater role of the government as the motivations of the private sector are usually linked to short-term returns on investment. In higher education, particularly, for professional courses, it is different. This sector has seen large scale private investment in the last two-and–a-half decades in India.

9.3.1 MHRD

The total amount of budget provisions on the revenue account made for education for the year 2015-16 by education departments for the States/UTs and the Centre turned out to be Rs. 433342.37 crore (Rs.364267.60 crore in State Sector and Rs. 69074.76 crore in the Central sector) which is 11.45 per cent more than the revised estimates of Rs.388822.72 crore for 2014-15. This amount constitutes 12.24 per cent of the total budget provisions made on the revenue account in the States and at the Centre.

Apart from the revenue account, the Education Departments of States/UTs also make some provisions for capital works. The total budget estimates on the capital accounts (including loans) accounted for Rs.14697.18 crore. Taking into account both the revenue as well as the capital account, the total budget estimates for education for 2015- 16 of the State Education Departments and the Education Departments of the Centre works out to Rs.448039.55 crore, which is 10.70 per cent of the total budget estimates. The total budget provisions (Revenue Account) for 2015-16 made by the departments other than Education works out to Rs. 126731.00 crore. Accordingly, the expenditure on Education by all the Departments, the total budget provisions for education is given in Table 9.1.

Table 9.1*: Expenditure on Education (2015-16 Budget Estimates Revenue Account)*

Rs in crore

	Centre	**States/UT**	**Total**
Expenditure (Rs. in crore)	118942.97	441130.39	560073.36
Percentage Share with respect to total	21.24%	78.76%	100%

It is observed from Table 9.1 that the States/UTs are contributing about 78.76 per cent of the total revenue expenditure on education in the country while centre contributes about 21.24 per cent to the education sector as a whole. The total revenue account of Rs.560073.36 crore constitutes 15.82 per cent of the total budget of the Centre and the States/UTs for 2015-16.

The budget provisions (Revenue Account) for the Education department of the Central and the State Governments are indicated in Table 9.2 which is as follows:

Table 9.2: Budgeted Expenditure (Plan & Non Plan) (Revenue Account) By Education Departments

YEAR	2013-14 (Actual)		2014-15(RE)		2015-16(BE)	
	CENTRE	STATE	CENTRE	STATE	CENTRE	STATE
PLAN	58048.79	44903.45	56567.90	72466.43	54893.76	84874.27
NON-PLAN	13445.98	216833.69	13987.10	245801.30	14181.00	279393.33
Total	71494.77	261737.14	70555.00	318267.73	69074.76	364267.60
Percentage Share of Plan Exp. to total exp. on education	81.19	17.16	80.18	22.77	79.47	23.30

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About 79 per cent of the Central expenditure on education is under plan Expenditure whereas in the case of States/UTs it is only 23 per cent in the year 2015-16.

9.3.2 UGC and AICTE

The Central Government, the University Grants Commission (UGC) and All India Council for Technical Education (AICTE) are constantly endeavouring to improve quality of higher education and make higher education practical in the country. The Central Government has launched several initiatives viz. National Institutional Ranking Framework (NIRF), Impacting Research Innovation & Technology (IMPRINT), Uchhatar Avishkar Yojana (UAY), Global Initiative of Academic Networks (GIAN), Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM), National Academic Depository (NAD), Technical Education Quality Improvement Programme (TEQIP), Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), National Digital Library, Campus Connect Programme and others in the field of higher education for qualitative development of education in the country.

The UGC undertakes maintenance of standards in teaching, research and quality assurance in Universities, Deemed to be Universities and Colleges through framing and notifying regulations, schemes and disbursing grants to the eligible institutions. With a view to sustain and improve the quality of higher education and to undertake academic reforms, the UGC has notified UGC (Minimum Standards and Procedure for Award of M.Phil./ Ph.D Degrees) Regulations, 2016; UGC (Promotion and Maintenance of Standards of Academic Collaboration between Indian and Foreign Educational Institutions) Regulations, 2016; UGC (Open and Distance Learning) Regulations, 2017; UGC (Institutions of Eminence Deemed to be Universities) Regulations, 2017; UGC (Conferment of Autonomous Status upon Colleges and Measures for Maintenance of Standards in Autonomous Colleges) Regulations, 2018 and UGC (Categorization of Universities (only) for Grant of Graded Autonomy) Regulations, 2018.

In order to encourage research and development in the country, UGC is implementing schemes, awards, fellowships, chairs and programmes under which

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financial assistance is provided to institutions of higher education as well as faculty members working therein to undertake quality research covering areas of knowledge across disciplines. Some of the initiatives taken by UGC are (i) Universities with Potential for Excellence; (ii) Centre with potential for excellence in particular area; (iii) Special Assistance Programme (SAP); (iv) Research Projects and (v) Basic Science Research.

UGC has also requested the Vice-Chancellors of all Universities to upgrade and review their curriculum every three years for making them more skill oriented and interdisciplinary and with a purpose of making the students employable. The introduction of Choice Based Credit System (CBCS) is another important measure taken by UGC to enhance academic standards and quality in higher education through innovation and improvements in curriculum, teaching-learning process, examination and evaluation systems. CBCS provides a 'cafeteria' type approach in which the students can take courses of their choice, learn at their own pace, undergo additional courses, acquire credits and adopt an interdisciplinary approach to learning.

Further, Government is implementing a Centrally Sponsored Scheme namely Rashtriya Uchchatar Shiksha Abhiyan (RUSA) with the aim of promoting access, equity and quality. The focus of the scheme is on serving the unserved and underserved areas. Under the scheme, central assistance is provided, inter alia, for components such as infrastructure grants to colleges and universities, upgradation of existing colleges to model degree colleges and so forth. Under these components, funds are provided to institutions for strengthening of infrastructure facilities for construction/renovation of libraries, laboratories, hostels and others for purchase of equipment in State Higher Educational Institutions (HEIs).

All India Council for Technical Education (AICTE) was set up in November 1945. AICTE was vested with the following objectives:

- Statutory authority for planning, formulation, and maintenance of norms & standards
- Quality assurance through accreditation
- Funding in priority areas, monitoring, and evaluation
- Maintaining parity of certification & awards
- The management of technical education in the country

You will study in detail about AICTE in Unit 11.

9.3.3 NIEPA

The National Institute of Educational Planning and Administration (formerly the National Staff College for Educational Planners and Administrators) is an autonomous institution set up and fully financed by the Government of India. It is registered as a Society under the Societies Registration Act XXI of 1860 in

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December 1970. As the apex training institute in India for educational planners and administrators, its main functions are training, research and administration. The main activities undertaken by the institute include, training and reorientation of senior educational administrators from the Centre and the States, according to their needs and background, research in problems of educational planning and extension service in this field to the States and other organizations, seminars, workshops and conferences on themes of topical interest in educational planning and administration and provision of training and research facilities to other countries, especially of Asian region.

9.3.4 NAAC

The National Assessment and Accreditation Council (NAAC) is an autonomous body established by the University Grants Commission (UGC) with a mandate of Quality Assurance of Higher Education Institutions (HEIs) in the country. To fulfill the mandate the NAAC has been carrying out the process of Assessment and Accreditation (A&A) of HEIs over the past two and half decades. Several HEIs have gone through this process and a sizeable number has also undergone subsequent cycles of accreditations.

Since quality assurance is a continuous process, the NAAC has taken many post accreditation activities to facilitate quality promotion, sustenance and enhancement among all institutions of higher education in general and among accredited institutions in particular. In this context, NAAC has decided to support seminar/workshop/conference focusing on quality sustenance and quality enhancement. In addition to academic support, financial assistance is also available for this purpose. The NAAC provides financial assistance to academic institutions, which are having valid accreditation by NAAC to organize state and national level workshop/seminar /conference on themes related to quality issues in Higher Education. The programme is expected to facilitate high standards in higher education in relation to any of the quality parameters in Higher Education. The HEIs concerned should thereby be able to extend facilities to academicians/ administrators/ research scholars to share their knowledge, experience and research in quality related aspects in Higher Education or provide intervention for improving the quality of education.

NAAC also supports academic collaboration for organizing seminar / workshop/conference without financial assistance to HEIs, which are having valid accreditation by NAAC. The eligibility conditions, procedure of applying and procedure for approval are same.

To ensure that quality assurance becomes an integral part of the functioning of the institutions, the NAAC promotes the establishment of Internal Quality Assurance Cells (IQAC) in accredited institutions whose prime responsibility is to develop a system for conscious, consistent and catalytic improvement in all parameters of quality and also to stimulate the academic environment for the

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attainment of an institution's academic objectives. NAAC invites applications from the IQAC of the accredited institutions for conducting seminar/workshop/ conference at the state or national level for quality enhancement of HEIs under these schemes. Thus, NAAC takes on a gamut of challenges in quality assurance in higher education.

9.3.5 NCTE

The National Council for Teacher Education, in its previous status since 1973, was an advisory body for the Central and State Governments on all matters pertaining to teacher education, with its Secretariat in the Department of Teacher Education of the National Council of Educational Research and Training (NCERT). Despite its commendable work in the academic fields, it could not perform essential regulatory functions, to ensure maintenance of standards in teacher education and preventing proliferation of substandard teacher education institutions. The National Policy on Education (NPE), 1986 and the Programme of Action thereunder, envisaged a National Council for Teacher Education with statutory status and necessary resources as a first step for overhauling the system of teacher education.

The National Council for Teacher Education as a statutory body came into existence in pursuance of the National Council for Teacher Education Act, 1993 (No. 73 of 1993) on the 17th August,1995.

9.3.6 RCI

The Rehabilitation Council of India(RCI) was set up as a registered society in 1986.On September,1992 the RCI Act was enacted by Parliament and it became a Statutory Body on 22 June 1993.The Act was amended by Parliament in 2000 to make it more broad-based. The mandate given to RCI is to regulate and monitor services given to persons with disability, to standardize syllabi and to maintain a Central Rehabilitation Register of all qualified professionals and personnel working in the field of Rehabilitation and Special Education. The Act also prescribes punitive action against unqualified persons delivering services to persons with disability.

Objectives

- To regulate the training policies and programmes in the field of rehabilitation of persons with disabilities.
- To bring about standardization of training courses for professionals dealing with persons with disabilities.
- To prescribe minimum standards of education and training of various categories of professionals/ personnel dealing with people with disabilities.
- To regulate these standards in all training institutions uniformly throughout the country.
- To recognize institutions/ organizations/ universities running master's degree/ bachelor's degree/ P.G.Diploma/ Diploma/ Certificate courses in the field of rehabilitation of persons with disabilities.

- To recognize degree/diploma/certificate awarded by foreign universities/ institutions on reciprocal basis
- To promote research in Rehabilitation and Special Education.
- To maintain Central Rehabilitation Register for registration of professionals/ personnel.
- To collect information on a regular basis on education and training in the field of rehabilitation of people with disabilities from institutions in India and abroad.
- To encourage continuing education in the field of rehabilitation and special education by way of collaboration with organizations working in the field of disability.
- To recognize Vocational Rehabilitation Centres as manpower development centres.
- To register vocational instructors and other personnel working in the Vocational Rehabilitation Centres.
- To recognize the national institutes and apex institutions on disability as manpower development centres.
- To register personnel working in national institutes and apex institutions on disability under the Ministry of Social Justice & Empowerment.

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9.3.7 NCERT

National Council of Education Research and Training (NCERT) is a premier organization in India to take care of the matters relating to school education and research in education. It has a long history of providing quality services to students and teachers. NCERT is well known for its text book publication up to 12th standard. Central Board of Secondary Education (CBSE) follows the curriculum of NCERT and its textbooks. Most state board schools also use NCERT books.

Establishment

The National Council of Educational Research and Training (NCERT) was set up in 1961 as an autonomous organization registered under Societies Registration Act (Act XXI of 1860) to advise and assist the Ministry of Human Resource Development, Government of India and Departments of Education in States/ UTs. The responsibility of NCERT is to formulate and implement their policies and programmes in the field of education for the improvement of school education and provides technical and academic support to schools in India.

Organizational structure

- ***General body:*** The Union Minister of Human Resource Development is the President (ex-officio) of the General Body of NCERT. The members of the General Body are the Education Ministers of all States and Union Territories and Chairperson of the University Grants Commission (UGC);

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the Secretary to the Government of India, Ministry of Human Resource Development (Department of Education); four Vice Chancellors of Universities (one from each region); the Chairman of the Central Board of Secondary Education; the Commissioner of the Kendriya Vidyalaya Sangathan; the Director, Central Health Education Bureau; the Director of Training, Directorate General of Training and Employment, Ministry of Labour; one representative of the Education Division, and the Planning Commission; members of the Executive Committee of the Council and nominees, not exceeding six, nominated by the Government of India (not less than four of them shall be school teachers). The Secretary, NCERT, is the Convenor of the General Body of the NCERT.

- ***Executive committee***: It is the main governing body of NCERT. The Union Minister of Human Resource Development is its President (ex-officio) and the Union Minister of State in the Ministry of Human Resource Development is the ex-officio Vice-President. The members of the Executive Committee are Director, NCERT; the Secretary to the Government of India, Ministry of Human Resource Development (Department of Education); Chairperson of the University Grants Commission; four educationists well known for their interest in school education (two of whom shall be school teachers); the Joint Director, NCERT; three members of the faculty of NCERT (of whom at least two are of the level of Professor and Head of Department); one representative of the MHRD and one representative of the Ministry of Finance (who is the Financial Adviser of NCERT). The Secretary, NCERT, is the Convener of the Executive Committee. The Executive Committee is assisted in its work by the following Standing Committees/Boards:
  - (i) Finance Committee
  - (ii) Establishment Committee
  - (iii) Building and Works Committee
  - (iv) Programme Advisory Committee
  - (v) Educational Research and Innovations Committee
  - (vi) Academic Committee of the NIE
  - (vii) Advisory Board of the Central Institute of Educational Technology
  - (viii) Advisory Board of Pandit Sunderlal Sharma Central Institute of Vocational Education
  - (ix) Managing Committees of the Regional Institutes of Education
  - (x) Advisory Boards of Departments of the NIE

Functions of the Council are looked after by the Director, Joint Director and Secretary. Three Deans, the Dean (Academic) coordinates the work of the Departments, the work of the Educational Research and Innovations Committee (ERIC) and Dean (Coordination) coordinates the activities of the Service/ Production Departments and the Regional Institutes of Education. Presently five

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Regional Institute of Education (RIE) is functioning as a part of NCERT, which are situated at different regions of India. All the RIEs are mostly teaching and research campus. RIE conducts their regular courses such as: four year integrated B.Sc./ B.A. and B.Ed., Two years B.Ed., M.Ed. and Research in Education. Besides teaching, they conduct many training programmes for the in-service teachers of that region. In every RIE, there is a Multi-Purpose Demonstration English Medium School situated in RIE campus which primarily used to conduct teaching up to 12th standard and conducts practice of teaching for the students who are admitted in different teacher education programmes. Besides that the school is used for conducting many educational experiment and practical work. Details of the RIE and the States they cover are given below in Table 9.3.

Table 9.3 *Organizational Structure of NCERT*

Units	Structure	States cover
NCERT Head Office, New Delhi	Director, Joint Director, Secretary	All the Indian States and Union Territory
RIE Ajmer	Principal, Heads	Chandigarh, Haryana, Himachal Pradesh, J & K, Delhi, Punjab, Rajasthan, U. P., Uttarakhand
RIE, Bhopal	Principal, Heads	Chhattisgarh, Dadra and Nagar Haveli, Daman & Diu, Goa, Gujarat, Maharashtra, Madhya Pradesh
RIE, Bhubaneswar	Principal, Heads	Andaman and Nicobar Islands, Bihar, Jharkhand, Odisha, West Bengal
RIE, Mysore	Principal, Heads	Andhra Pradesh, Karnataka, Kerala, Lakshya Deep, Puducherry, Tamil Nadu
NE-RIE, Shillong	Principal, Heads	Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura

The Regional Institutes of Education (RIEs) located at Ajmer, Bhopal, Bhubaneswar and Mysore cater to the educational needs (pre-service and in-service education) of teachers/teacher educators in the States and UTs under their jurisdiction. Pre-service professional training programmes are offered to prepare school teachers for teaching of different school subjects. These are Regional Resource Institutions for school and teacher education and they extend assistance in implementing the policies of the States/UTs and help in monitoring and evaluation of the Centrally-Sponsored Schemes. The North-East Regional Institute of Education (NERIE), Shillong, caters to the in-service educational needs of North-Eastern States as indicated earlier. However, the pre-service teacher preparation programmes for the North-East Region are still being taken care by RIE, Bhubaneswar.

Objectives

The major objectives of the NCERT and its constituent units, RIE, are as follows:

- Undertake, promote, aid, and coordinate research in areas related to school education
- Prepare and publish model textbooks, supplementary material, newsletters, journals and other related literature

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- Organize pre-service and in-service training of teachers
- Develop and disseminate innovative educational techniques and practices
- Collaborate and network with state educational departments, universities, NGOs and other educational institutions
- Act as a clearing house for ideas and information in matters related to school education
- Act as a nodal agency for achieving goals of universalization of elementary education.

In addition to research, development, training, extension, publication and dissemination activities, the NCERT is an implementation agency for bilateral cultural exchange programmes with other countries in the field of school education. The NCERT also interacts and works in collaboration with the international organizations, visiting foreign delegations and offers various training facilities to educational personnel from developing countries.

Role and function of NCERT

NCERT focuses on six areas such as Research, Development, Training, Extension and Dissemination, Publication and Exchange programmes. Let us discuss the specific role of NCERT.

(i) Research

- Conduct and support research and offer training in educational research methodology.
- NIE, RIE, CIET, and PSSCIVE undertake programmes of research related to different aspects of school education, including teacher education.
- Support research programmes of other institutions/organizations by providing financial assistance and academic guidance.
- Provide assistance to research scholars for publishing their PhD thesis and also provide fellowship to conduct research in education and related areas.
- Organize various courses for educational researchers and educational project undertakers.
- Conduct countrywide educational research and surveys on the development of school education such as achievement of the students in various subjects, retention, dropouts, and pedagogical issues.
- Collaborate with international agencies in inter-country research, projects and comparative studies in school and teacher education.

(ii) Development

- Develops and renews curricula and instructional materials for various levels of school education and makes them relevant to changing needs of children and society.

- Comes out with new innovative practices and methodology including pre-school education, formal and non-formal education, vocationalization of education and teacher education.
- Undertakes many developmental works in the field and domain such as educational technology, population education, women education, moral and value education, and education of the disabled and the children of special needs.
- Suggests the State Education Department to use new techniques, methods, and technology in the field of school and teacher education.

(iii) Training

- It conducts pre-service and in-service training of teachers at various levels—pre-primary, elementary, secondary and higher secondary, and also in such areas as vocational education, educational technology, guidance and counselling, and special education.
- RIEs of NCERT incorporates innovative features such as integration of content and methodology of teaching, long-term internship of teacher trainees in the actual classroom setting, and participation of students in community work in their pre-service teacher training programme.
- At present, it practices to send their staffs to the rural schools to get school based experiences for three months in every three years. That helps the teacher educators to understand the development and the requirements of educational practices in ground root level.
- RIEs also undertake the training of teachers of the states and of state level institutions and training of teacher educators and in-service teachers.
- Train thousands of teachers in India in a single effort, it uses two-way-audio and video teleconferencing in various issues. Teleconferencing on National Curriculum Framework 2005 is an example of such types of training module.
- Train both in-service and pre-service teachers to be proficient in ICT.

(iv) Extension

- Organize many extension services and programmes through its departments such as NIE, RIEs, CIET, PSSCIVE.
- Works in close collaboration with various agencies and institutions in the states and also works extensively with Extension Service Departments and Centres in teacher training colleges and schools.
- Provides assistance to various categories of personnel, including teachers, teacher educators, educational administrators, question-paper setters, textbook writers, etc. Conferences, seminars, workshops and competitions are organized as regular on-going programmes as a part of the extension activities.

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- Organizes various educational programmes in rural and backward regions to motivate, inspire, and to bring the rural talents to the main stream of the society.
- Organizes extension programmes throughout the country and Union Territories on special educational programmes for the children with special needs and differently abled.

(v) Publication and dissemination

- Publishes textbooks for different school subjects for Classes I to XII in English Hindi, and Urdu.
- Brings out workbooks, teachers guides, supplementary readers, research reports, etc. In addition, it publishes instructional materials for the use of teacher educators, teacher trainees and in-service teachers.
- Publishes six educational journals in various fields such as Research in Education, New Trends in Education, Publishing Abstract of Good Educational Research, reflecting critical thinking in education on contemporary issues.
- Publishes in-house journal called NCERT Newsletter both in English and Hindi language.
- Publishes teacher support materials subject wise which helps the teachers and the teacher educators to make use of content by properly designing with pedagogy.

(vi) Exchange programmes

- To study educational problems and organize training programmes for personnel from developing countries, NCERT interacts with international organizations such as UNESCO, UNICEF, UNDP, NFPA and the World Bank.
- Acts as the Secretariat of the National Development Group (NDG) for Educational Innovations. It is one of the Associated Centres of APEID.
- NCERT offers training facilities through attachment programmes and workshops to educational workers of other countries.
- Acts as a major agency for implementing Bilateral Cultural Exchange Programmes in the field of school education and teacher education by sending delegations to study specific educational problems and by arranging training and study visits for scholars from other countries.
- Educational materials are exchanged with other countries and also equally get the materials from other countries for comparing it and to produce quality materials for its students.

- It also organizes faculty exchange programmes on request, and the faculty members are deputed to participate in international conferences, seminars, workshops, symposia, etc.

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Check Your Progress

3. Name the three forms of equity which guide educational finance.
4. What do you understand by the concept of transparency in the context of educational finance?

9.4 ANSWERS TO CHECK YOUR PROGRESS QUESTIONS

1. Several policies have been put in to practice to generate students' interest in school and to make them comfortable in the school environment. Mid-Day Meal and Attendance Stipend are two such initiatives which have yielded commendable results.
2. 'Beti Bachao Beti Padhao 'scheme is a joint initiative of Ministry of Women and Child Development, Ministry of Health and Family Welfare and Ministry of Human Resource Development not only to prevent female infanticide but also to promote their education.
3. There are three forms of equity which would guide the educational finance namely student equity, teacher equity and taxpayer equity.
4. The concept of transparency in the context of educational finance may be defined as the need to provide information on funding formulas and processes to the public in a comprehensible language.

9.5 SUMMARY

- To understand the education of socially and culturally disadvantaged, it is important to first know the meaning of 'child belonging to disadvantaged group'. Section 2(d) in The Right of Children to Free and Compulsory Education Act, 2009 can be helpful in this case. The Section defines 'child belonging to disadvantaged group' means a child belonging to the Scheduled Caste, the Scheduled Tribe, the socially and educationally backward class or such other group having disadvantage owing to social, cultural, economic, geographical, linguistic, gender or such other factor, as may be specified by the appropriate Government, by notification.
- The MHRD continues to run several programmes for improving the educational status across different age groups and belonging to different social and cultural pockets. Some of these schemes include: Sarva Shikhsa

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Abhiyan, Mid-Day Meals, Rashtriya Madhyamik Shiksha Abhiyan, Rashtriya Uchchatar Shiksha Abhiyan, Kasturba Gandhi Balika Vidyalayas (KGBVs).

- Educational inequality is one of the main causes of poverty, backwardness and underdevelopment in the world. Education is an important tool to evade unemployment and ensure economic independence among individuals. There are various causes of inequality in different parts of the world but upon broad examination of the causes of educational inequality it is found that several causes are common to all nations and continents. These are economic disparities, racial discrimination, gender differences, unemployment, poor educational infrastructure, traditional or unscientific teaching-learning approaches, substandard teacher education and inappropriate educational administration.
- Educational finance as a term may sound to be of interest to educational policy makers. However, every prospective educational administrator should be interested in the study of education finance.
- The Central Government, the University Grants Commission (UGC) and All India Council for Technical Education (AICTE) are constantly endeavouring to improve quality of higher education and make higher education practical in the country.
- The National Institute of Educational Planning and Administration (formerly the National Staff College for Educational Planners and Administrators) is an autonomous institution set up and fully financed by the Government of India. It is registered as a Society under the Societies Registration Act XXI of 1860 in December 1970.
- The National Assessment and Accreditation Council (NAAC) is an autonomous body established by the University Grants Commission (UGC) with a mandate of Quality Assurance of Higher Education Institutions (HEIs) in the country.
- The National Council for Teacher Education, in its previous status since 1973, was an advisory body for the Central and State Governments on all matters pertaining to teacher education, with its Secretariat in the Department of Teacher Education of the National Council of Educational Research and Training (NCERT).
- The Rehabilitation Council of India(RCI) was set up as a registered society in 1986.On September,1992 the RCI Act was enacted by Parliament and it became a Statutory Body on 22 June 1993.The Act was amended by Parliament in 2000 to make it more broad-based.
- National Council of Education Research and Training (NCERT) is a premier organization in India to take care of the matters relating to school education and research in education.

9.6 KEY WORDS

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- **Egalitarian society:** This society lays emphasis on the equality of all individuals and believes in equal opportunities and rights for all.
- **Educational finance:** It is concerned with the income and expenditure of educational institution administrators.

9.7 SELF ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. Why is it significant to educate the socially and culturally disadvantaged groups?
2. Briefly mention the Constitutional provisions which ensure equality of educational opportunities in all walks of life.
3. Write short notes on the following:
   (a) Education for Women's Equality
   (b) Education of Scheduled Castes
4. What are the reasons for interest of educational personnel in educational finance?
5. List the objectives of Rehabilitation Council of India (RCI).

Long-Answer Questions

1. Discuss the sources of educational finance.
2. Explain the principles of educational finance.
3. Evaluate the role of MHRD, UGC AND AICTE in quality improvement in the educational sector.

9.8 FURTHER READINGS

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UNIT 10 COMMUNITY EDUCATION

NOTES

Structure

10.0 INTRODUCTION

All educational programmes launched on national and international levels to assist learners to acquire the knowledge, skills, attitudes and values which will enable them to make informed decisions about population come under the umbrella of term 'Population Education.' This field of knowledge also incorporates issues and agenda of the people that could affect their quality of life. Scholars and academics regard it as an educational process which helps people to understand the nature, the causes, and consequences of population events. Today, it is incumbent upon policy makers and planners to spread the knowledge about population dynamic. For students in this field, it is essential to understand interactions between population and their environments and the impact of population increase in the community. It is now scientifically acknowledged that unprecedented population growth, especially in developing countries is one of the major roadblocks in the improvement of quality of life among the people at large. It is a serious challenge for Government agencies, NGOs and all stakeholders to ensure that population education is treated as educational programme from the very beginning.

Despite glaring misconceptions, secrecy and inhibition in talking about sex among parents and children, one needs to understand that sex education could play a key role in physical and biological aspects of the growth of an individual. To make it effective, it must commence from the earliest stages of a child's life. The issue of character building among individuals has led to stress the need for value-oriented education. In recent times, various programmes are being initiated in schools to bring in the sense of value among students.

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The 'Socially Useful Productive Work/Work Experience (SUPW/WE)' was introduced in the school curriculum as it could function as it could function as a powerful instrument for social transformation. Environmental education doesn't only help individuals gain knowledge about the environment but also develop environment behaviour and skills so that they can keep it sustainable for the future generations also. Although women's education in India still faces several problems, serious attempts are now being made to promote it on priority basis.

This unit introduces to you various issues related to population education, sex education, value-oriented education, work experience/SUPW, environmental education and education of women.

10.1 OBJECTIVES

After going through this unit, you will be able to:

- Explain the nature, scope and significance of population education
- Understand sex education and its importance
- Analyse the need and significance of value-oriented education
- Discuss the objectives of introducing Work Experience/SUPW
- Learn about environmental education and its relevance
- Understand the need and scope of education of women

10.2 POPULATION EDUCATION AND QUALITY OF LIFE

Population education being a new area of study in some cases is misunderstood as sex education and family planning. Population education is not birth control or family planning education, although the information about both might be included in its content. It is an education to make you aware of the processes and consequences of human population growth on the quality of life and the environment, so that you may be in position to decide for yourself how many children you should have.

Sloan Wayland has defined population education as 'population awareness and population dynamics' and questioned the very appropriateness of sex and family life approaches.

According to a seminar organized by the UNESCO, 'Population education in a broad way can be defined as an educational programme which provides for a study of the population situation in family, community, nation and the world, with the purpose of developing in the students rational and responsible attitudes and behaviours towards the situation.'

In other words population education can be defined as a process by which the students investigate and expose the interactions between populations and their

environments, population characteristics, the nature and meaning of the processes, the causes and controls of population change and the consequences of population increase in the biological and social global levels.

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Viederman defines population education as:

> 'An education process which assists persons (a) to learn the probable causes and the consequences of population phenomena for themselves and their communities (including the world); (b) to define for themselves and their communities the nature of the problem associated with population processes and characteristics; and (c) to assess the possible effective means by which the society as a whole and he as an individual can respond to and influence these processes in order to enhance the quality of life now and in the future.'

10.2.1 Population Education as an Educational Programme

We can accept that education makes significant contribution to the socio-economic transformation of any country. The need of the hour is to use education as an agent of social change through socialization process. It is here that you can see population education becomes relevant as a motivational force in the adoption of family planning as a way of life by the people.

The aim of the population education should be to mould the attitudes and behaviour of the general population in such a way as to enable them to adapt to the present and future situation.

The nature of the population education for illiterate population of various ages can be informal kind of education through appropriate audio-visual methods and for the literates we can suggest formal kind of education through schools and colleges. At the high school level, it should be enough if the student is made conscious and aware of the socio-economic problems connected with the population growth and the need for a small family. It should be enough if the student is made conscious and aware of the socio-economic problems connected with the population growth and the need for a small family. At this stage, it should be our effort to convince the student that small size family, better health, late marriages, etc., are essentially a part of family welfare and social development. We should be able to introduce progressively the element of sex education, family planning birth control, etc. Of course, here interdepartmental collaboration needs to be ensured for a subject like population education cannot be handled purely by any one department or discipline, social scientist and medical people need to collaborate more and more. In this way, the new generation should be given an opportunity to acquire a stable educational atmosphere and the ways in which it interacts with the social, economic and political aspect of life, influencing thereby not only the physical standards but the very quality of human.

Apart from talking about population education for the school or college youth, it is necessary to target young couple who are outside the schools and colleges. While informal education may be useful for many couples, sustained efforts have to be made to educate the literate couple in a semi-formal manner.

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For this, the governmental agencies, social science and medical departments and the non-governmental organizations should operate evening or night classes in different localities for the benefit of young couples. In a country like ours, such programmes are quite essential to remove many a kind of fear and misconceptions in the minds of young couples regarding birth control and family planning.

10.2.2 Scope of Population Education

The population education has been divided into five components which reflect the scope of this subject. The five components are:

1. Population Dynamics
2. Family Life Education
3. Human Reproduction
4. Food and Nutrition
5. Maternal and Child Welfare

These five components consist of the various important areas of economic, social and cultural aspects of human beings, which are as follows:

1. **Population Dynamics:** In this component, along with determinants and consequences of population growth, the students must be aware of different population theories and their application in the developed and developing countries. In this component of population education, population growth, situation, trends, reasons for population growth, population age groups, birth rates, death rates, infant mortality rates, over population and socio-economic problems will be covered. Age structure, sex ratio, working force, dependency ratio, urbanization and its effects and relationship between different demographic concepts may be explained to the students. The composition of household and family size and their effects on population growth should also be incorporated in the syllabus. The economic growth of the country in comparison to population should be compared and in addition to these economic conditions of the nations and population growth a comparative picture will be explained to the students.
2. **Family Life Education:** In this component of population education, information about family, age at marriage, status of women, role of society and social problems will be discussed. The students will be able to understand the meaning of family life education; the students will understand the relationship between rising age at marriage and fertility control, family income, standard of living and status of women in relation to quality of life.

   The students should be able to differentiate between family life education and population education, distinctions and similarities

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between population education and family life education and components of family life education like concept of family, type of family, the family size, problems of adolescent, quality of life, age at marriage, family income and budgeting, standard of living, the need for family life education in the family.

3. **Human Reproduction:** In this component, the anatomy and physiology of male and female reproductive organs, their function and reproductive process, development of embryo, etc., will be discussed. This helps us to understand the relation between the sexes and thereby may reduce some of the tensions and conflicts which arise in marriage by showing the need for compromise and mutual help. In addition to this, it is also essential to keep in mind the family roles and relationship understanding one's emotion and how anxiety and guilt affect relationships between family members and friends. An understanding and appreciation of these factors promotes marital adjustment. The different methods of contraception and other sexually transmitted diseases will also be discussed along with the Medical Termination of Pregnancy Act of 1971.
4. **Food and Nutrition:** In this component of population education, information about balanced diet, incidence of malnutrition and nutritional deficiency status, clinical symptoms of nutritional deficiency diseases, causative factors to malnutrition, consequences of malnutrition, consequences of malnutrition, the vital role of nutrition in relation to certain components of population education, strategies to improve the nutritional status of the mothers and children, etc., will be discussed. Hence educating the youth in nutrition education can make them effective liaison agents in their own communities, which can be a vital approach for a small family norm and better quality of life.
5. **Maternal and Child Welfare:** Through this component, the population education agents will be acquainted about the major causes for poor maternal and child health status, consequences of poor maternal health, types of maternal health services available health infrastructure set up at the centre, state and district levels and nutrition and health education, information about community health and general sanitation, prenatal, natal and postnatal care, prevention of infant mortality, maternal mortality, immunization of children, etc., in the context of population growth of the country.

In this way all these five components of population education cover all aspects related to population issues.

10.2.3 Population and Quality of Life

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World Health Organization (WHO) has defined quality of life as:

> 'The condition of life resulting from the combination of the effects of the complete range of factors such as those determining health, happiness (including comfort in the physical environment and a satisfying occupation), education, social and intellectual attainments, freedom of action, justice and freedom of expression.'

Thus quality of life can be evaluated by assessing a person's feelings of happiness or unhappiness about the various life concerns. People are now demanding a better quality of life. Therefore, governments all over the world are increasingly concerned about improving the quality of life of their people by reducing morbidity and mortality, providing primary healthcare and enhancing physical, mental and social well-being. It is conceded that a rise in the standard of living of the people is not enough to achieve satisfaction or happiness. Along with this, increased emphasis on social policy and on reformulation of societal goals to make life more liveable for all those who survive must also be added for better quality of life. The quality of life is a very complex concept as it involves the satisfaction of the emotional needs and social aspirations of the society as well as the society's ability to meet the basic needs of food, energy, space, housing, etc., by itself. As there will be lot of variations in individual needs and social aspiration it is hard to give one definition of the quality of life, which can be acceptable to all.

In traditional culture as well as in modern cultures, quality of life is linked with the maximization of comfort. In traditional culture, the rule was to work only as much as absolutely necessary in order to survive. Even in the modern society the quality of life is associated with the maximization of comfort. In modern societies, the comfort is usually associated with higher consumption of goods.

We can also assess the quality of life of the people of any country based on their budgetary expenditures on food, housing, recreation, religion and other activities or by other non-monetary items like trustworthy traditions, spiritual qualities and sense of security. However, the quality of life of the people in different countries can be compared through some physical criteria like (1) The quantity and quality of the basic physical needs of man such as food, fresh air, fresh water, housing clothing, etc. (2) The quantity and quality of the social and cultural needs of such as educational and employment opportunities, medical and health facilities, conditions of work, security, transportation, recreation, freedom, entertainment, opportunities for creative development and so on.

One of the major obstructing factors of the improvement of quality of life of the people is population growth, especially in developing countries. If more people live in an environment than the environment can sustain, the quality of life per person living in that environment goes down. Things like the quality of food and consumer goods go down to make up for this negative effect. An increase in population indicates that there will be more threat to biodiversity as plants will be cut down to accommodate people. Environmental pollution will increase as a result

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of which the quality of life will be affected. The more people there are, the fewer resources and less space there is for each individual person, and also society as a whole. Therefore, life quality decreases significantly. The more the people, the fewer are the jobs. It leads to more homeless people. The more people there are, the greater the crime rate as well.

Therefore, quality of life is the result of population dynamics, available infrastructure and resource structure of an area. India being a top scorer in population growth in the world has been suffering from problems relating to socio-economy and quality of life since long decades. Another factor which determines the quality of life is the growth of prices of consumer goods and inflation. The index of food prices as well as general consumer goods in India has more than doubled. The increase of prices of consumer foods as well as slower growth of per capita income is mainly due to the increase in population growth.

Population increase can affect the quality of life, decreases the availability of food per capita, Gross National Product (GNP), per capita income, educational and employment opportunities, health facilities, sanitation, housing, etc. Eradication of poverty and provision of the basic minimum services and reducing the fertility are integral to the strategy directed at improving the quality of life.

Check Your Progress

1. Define the term 'population education'.
2. Which are the various components of population education?
3. How does population impact quality of life among the people?

10.3 SEX EDUCATION

There is no doubt that ignorance about sex and sex related problems is one of the main causes of unhappiness and maladjustment in life. Moreover, research shows that a large number of anti-social acts are committed by the adolescents as proper and timely information on sex not being made available to them. Therefore, there is an urgent need of imparting sex education to the youngsters and adolescents.

There is still a good deal of prejudice against giving sex education to boys and girls. The parents often believe that such information will spoil their morals. It is necessary to remove such misconceptions from the minds of the parents and to convince them that this subject will inculcate in the minds of the youngsters a healthy attitude towards the opposite sex, based on a sense of social responsibility and equality.

Youngsters who are kept ignorant of their own body changes are naturally unable to adjust themselves physically and psychologically at the time of onset of changes of adolescence, and develop an unrestrained behaviour. This ignorance may lead to family disharmony and marital conflict.

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Sex education should not be considered secretive*:* Talking about sex is usually considered taboo, sinful or not worthy of mention in a conservative society. There is general inhibition in talking about sex. However, it is increasingly being realized now that without sex education people cannot live a happy and well-adjusted life, because many marital, emotional and mental problems occur as a result of the misdirection and misconceptions about sex. Alva Myrdal observed, "In general, more wholesome attitudes towards sex, questions will not be created until they are discussed openly and as a matter of fact phenomenon." Children ask questions about sex as the subject fascinates them. It is the answer and the way it is given that plays an important part in forming their future attitudes towards it. Frank and honest response can help them develop a healthy outlook.

Scope of Sex Education

Sex education includes in its scope not only physical and biological aspects of the growth of an individual including reproduction, but also, matters pertaining to ethics, morality and development of a responsible, wholesome and correct attitude towards the other sex.

Prof. Uday Shanker was of the opinion, "Education without sex education is ridiculous as the 'how' of population control cannot be answered without sex education. Sex education is no imposition, it concerns a vital matter in which children are interested. Interest in sex is instinctive and starts from early infancy. In pre-adolescent boys and girls, the sex drives intensifies. Enlightenment on sex is to be given intelligently and pleasantly but gradually and methodically. There need not be any class on the subject like history or geography, nor there any general rule as to the time and place or manner of imparting sex education. Through the teaching of general science, biology, physiology or hygiene, a good deal of physiological knowledge about sexual differences, animal and human reproduction, involving all the process of mating, fertilization, pregnancy or birth can be imparted."

Role of Parents in Sex Education

To make this education effective, it must commence from the earliest stages of a child's life. It is the family where foundation is laid of a child's personality and where, by stages, his outlook on life and character are moulded.

Parents have, thus, to play a central role in the scheme at all stages. It is in fact, a part of family life education that goes on from infancy to maturity.

Sex education is, therefore, essentially a preventive measure to help children become emotionally stable and develop character. This knowledge should be given to make them aware of the pitfalls of early life and should create in their minds sound moral values and proper attitudes.

Role of the Teachers

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During the school stages, the teachers must play a very important role in giving requisite knowledge to the students and guide them to acquire a sense of regard and helpfulness towards the other sex. The instruction should be given according to the age of the student and his state of physical, mental and psychological development. Such information should be integrated with other subjects such as civics, nature study, biology and physiology. Sex education should thus permeate the entire school curriculum. It should never be taught as a separate subject, but incidentally in the context of other subjects and in response to children's questions.

It is possible that some teachers may themselves not be quite familiar with the subject. The education authorities should organize in-service training course for teachers in such cases.

It would be beneficial if the parents are kept informed of this as a character building activity. Parents and teachers meet regularly to sort out their mutual problems to determine a common course of action to avoid conflicts in the advice to young people.

General guidelines to teachers in imparting sex education: The teachers should try to establish a warm, friendly, open-minded classroom environment, free of embarrassment and self-consciousness in which students feel free to ask questions which trouble them and can expect to get honest, sensible answers.

Matters relating to sex should be discussed by the teachers in a direct, unemotional and unembarrassed manner and should be talked in an objective, matter-of-fact way as in dealing with any other subject. Normal aspects of sex should be emphasized to build up healthy attitudes which will enable a student to make wise choices.

Teachers should discuss problems with students and let them draw their own conclusions and give appropriate facts because knowledge satisfies curiosity.

Students should be encouraged to participate in planning the lessons.

A questions box in which students may put questions anonymously (if they feel free in opening up in the class) should be put up and films and other visual aids should be shown to clarify concepts.

Adequate and carefully selected books on this subject should be kept on an open shelf in the school library.

Adolescence and Sex Education: An Outline of Areas to be covered

A publication entitled *Sex Education: How and Why,* written by Dr W Mathur for the Association for Social Health in India (1976) gave the following broad outlines of the topics to be taken up by the teachers and others with a view to guide the adolescents.

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Table 10.1 Adolescents: 14-18 Years Age Group

Objectives	Content	Approach
1. To help the adolescent grow into a responsible and knowledgeable adult.	Knowledge of the phenomenon of ovulation, nidation, foetal development and birth of a baby. Marriage and reproduction and the need of assistance at birth.	Talks with the aid of audiovisual tools. Emphasis on leading highly moral and ethical life in the interest of family happiness, and community peace.
2. To make him understand venereal diseases	Different venereal diseases, their mode of infection and their damaging effect on patients.	Causes of these diseases, their symptoms and the condition of patients should be illustrated by means of films, film strips and pictures.
3. To make him aware of promiscuity and prostitution.	Dangers of promiscuous sexual relations. Causes very adverse influence on family life; it is a great social evil. Prostitutes are one the reasons of the spread of venereal diseases.	Full and frank discussion. All extra-marital sexual relationships must be avoided in the interest of personal health and family harmony.
4. To make him aware of homosexuality	It is an unethical and unnatural practice and is a punishable offence under law.	Awareness about venereal diseases should be created. Adolescents should be encouraged to spend their spare time, in nation building activities, sports and cultural programmes.

Check Your Progress

4. Why sex education is important?
5. How do parents and teachers play a key role in sex education?

10.4 VALUE-ORIENTED EDUCATION

The concern for value education is reflected in our key policy documents from time to time. After Independence, the National Commission of Secondary Education (1952-53) was a significant landmark in emphasizing character building as the defining goal of education. The shift of focus, over the decades, from religious and moral education to education for peace, via value education, parallels the shifting sense and sensitivities in the larger context of education. The acceptance of education for peace as a necessary ingredient of holistic education in the western context was driven by deepening anxieties about the rise and spread of violence. A similar pattern is obtained in our context as well.

Why education for values?

An important reason for reorienting education for values is the fact that the current model of education contributes to the lopsided development of students. This model of education puts exclusive focus on cognitive to the total neglect of the affective domain and presents alienation between the head and heart. Students are nurtured in a spirit of excessive competition and are trained right from the beginning to relate to aggressive competition and facts detached from contexts.

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The individualistic idea of excellence is promoted at the cost of emotional and relational skills. Young learners hardly understand why they are in school, why they are studying different subjects and how their schooling will be helpful to them. Their understanding is limited to learning about the subjects. They hardly know how they should live their lives, commit themselves to the welfare of the country, care about the environment and other social and moral issues. They are not clear as to what sort of persons they hope to become when they complete their school education.

Education of this kind turns children into machines. Such a perspective defeats the very purpose of education -- the wholesome development of personality including ethical development which is fundamental for making responsible decision making in case of moral conflicts.

Improvement of the quality of education has always been the key concern for education. In recent times, quality education has been defined in more pragmatic terms. It has become synonymous with employability, preparation for the word of work, less and less consideration is given to the subject of education, i.e., individual student and his/her full development as a human being.

Improvement of quality of education is not the only reason for value education. The current resurgence of interest in education as a powerful means to inculcate values among students is also due to the fast degeneration of values in our country. Despite considerable progress made, our society is shaken by conflicts, corruption and violence. There has been distortion in our value system.

The problem of declining values is multi-dimensional arising out of a combination of major social forces such as globalization, materialism, consumerism, commercialization of education, threats to humanity due to climatic changes, environmental degradation, violence, and terrorism.

Causes of Value Crisis in Present Society

1. **Challenges of traditional values:** In the past, the society in which we were living was well protected and self-contained. But today the technological advances have brought many changes at the personal, racial, social and national levels. Man has to adjust himself to all the variations, and this has given rise to a crisis in the value system.
2. **Development of the attitude of cynicism:** The attitude of people towards the existing value system is turning out to be negative. Rejection of the pre-existing values and not believing in formulating new ones has brought deterioration of the moral values.
3. **Loss of leadership and ethical values in teachers:** Teachers have three important functions to perform, i.e., to teach, set examples for others and

have influential effect. But in this materialistic society teachers have lost their sense of devotion and dedication towards their profession. Teachers must themselves set examples for their students; only preaching will not help the students to follow the right beliefs and values.

4. **Undue emphasis on literacy**: Just getting a certificate or degree from college or university is not sufficient to qualify a person as literate. Even an illiterate can possess good qualities under the influence of right education, guidance and values.
5. **Impact of materialistic philosophy on modern society**: In the mad race of money and power people are neglecting values. For people only materialistic things are more important rather than living an ethical life.
6. **Increasing emphasis on Individualism**: In the current scenario, the social bonding has lost its strength and people are developing a hedonistic outlook. Love and affection even among the family members is getting lost. Thus people are not able to develop the sense of loyalty and sacrifice.

Importance of Value Education

- Value education helps develop a healthy and a balanced personality.
- It enables a child to earn his livelihood and to acquire material prosperity.
- It develops vocational efficiency.
- It develops character and morality in children.
- It makes children ideal citizens.
- It helps in reconstruction of experiences.
- It enables children to adjust to their environment.
- It promotes social efficiency.
- It develops cultural values.
- It inculcates the feeling of national integration.

The role of National Policy on Education (1986 and 1992) on value education

The National Policy on Education (NPE; 1986) highlights the urgent need for value education in view of the growing erosion of essential values and increasing cynicism in society. With a well-designed system of curriculum, it is possible to make education a forceful tool for the cultivation of desirable ethical, moral, spiritual and social values. Education should foster universal and eternal values. Value education should help to eliminate obscurantism, religious fanaticism, violence, superstition and fatalism. Education which inculcates universal and eternal values like compassion, courage, honesty, and tolerance and truthfulness, will help in developing balanced individuals and in creating a humane society.

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The National Policy on Education (1986 as amended in 1992) observes, 'Every country develops its system of education to express and promote its unique socio-cultural identity and also to meet the challenges of the times. There are moments in history when a new direction has to be given to an age-old process. That moment is today.'

NPE has further observed, 'Education has an acculturating role. It refines sensitivities and perceptions.'

The NPE has further expressed its concern over 'value crisis and the role of education' as, 'The growing concern over the erosion of essential values and an increasing cynicism in society has brought to focus the need for readjustments in the curriculum in order to make education a forceful tool for the cultivation of social and moral values'.

The Programme of Action on National Policy on Education (1986) in the chapter entitled *'The Cultural Perspective'* under the sub-heading 'Institutes of Moral Education' has made the following observations:

'A special place has been assigned to imparting of value-oriented education in the Education Policy document. A beginning would be made by instituting a special study on value-oriented education. Based on its analysis, it would in collaboration with NCERT and state institutions, help in suggesting broad parameters of values of integrity truth, devotion, loyalty, etc., with particular reference to their embodiment in Indian heritage, so as to blend naturally with the overall educational process.'

Check Your Progress

6. List some of the causes of value crisis in present society.
7. Why value-oriented education is important?

10.5 WORK EXPERIENCE & SUPW

Education at all stages has been regarded as a powerful instrument for social transformation. The major task of education in India today is to usher in a democratic, socialistic secular society which removes prejudices among people. The objectives of introducing 'Socially Useful Productive Work/Work Experience (SUPW/WE)' in the schools is to help in the realisation of these goals. Therefore, not only does it form an integral part of the school curriculum, but has its ramifications into other subjects of the school curriculum.

The Programme of Action of the National Policy on Education of 1986 states that the basic emphasis in interlinking education and culture should be on helping a child to discover his latent talent and to express it creatively. This can be

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achieved through a participative process, using their immediate environment giving special emphasis to curriculum reorientation and motivating teachers to interact with the students at different levels. NPE-86, therefore, recommended that Work Experience/SUPW should be integrally linked with various subjects both at the level of content and pedagogy.

The formulation of NPE-86 was based on a similar analysis of the prevailing situation with regard to SUPW as recommended by the Ishwar Bhai Patel Committee Report. The national consensus was to retain the name, 'Work Experience' with the definition that it is "purposive and meaningful manual work organized as an integral part of learning process and resulting in either goods or services useful' to the community". The NPE'-86 states that it should be an essential component at all stages of education to be provided through well- structured programmes. In view of this, there are no conceptual differences between the recommendations of the NPERC and NPE'86. The problem basically relates to its poor implementation. The National Curricular Framework of 1988 brought out by NCERT has suggested compulsory work experience at all stages of school education.

It is critical to have a minimum time allocation for this component of the school curriculum so that it is not excluded altogether during the process of curriculum prescription. One can approximately suggest 1/5th to 1/8th of the total curricular time for Work Experience/ SUPW depending on the stage of education. At present, the time allocation hardly exceeds 10 percent in many States. Steps would, therefore need to be taken to see that the objectives envisaged in the policy are fulfilled through measures which remedy the flaws in implementation.

Handicrafts in this country are an important part of our rich cultural heritage, which serve to satisfy the aesthetic needs of man and provide a vehicle for his urge for self-expression. The real significance of handicrafts lie in the newness and surprise of each object.

Today we are losing not only an ancient heritage but an essential element in our social composition which has been a strong cementing force. SUPW/WE in schools gives an opportunity to revive and keep alive the rich heritage and cultural traditions of our country and encourages creativity among students. During the Workshop on SUPW/WE, the teachers get intensive training in three to four crafts. The crafts which are generally taught are Pottery, Clay Modelling, Paper Mache, Mask Making, Tie & Dye, Rangoli, Wall decoration, Cane work, Bamboo work, Book binding, Paper toys, etc. Classes for Learning of Songs in National languages are also conducted to inculcate a spirit of communal harmony and a sense of respect for all the languages. Lecture, demonstrations and slide-shows are arranged on a variety of topics related to Indian Handicrafts and Culture. Sessions on use of CCRT's educational material for creative activities in curriculum teaching are also organised.

10.6 ENVIRONMENTAL EDUCATION

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Environmental education is defined as 'the education that helps individuals to become more knowledgeable about their environment and to develop responsible environmental behaviour and skills so that they can improve the quality of the environment' (UNESCO, 1978).

In order to understand environment education, you should know what is environment. Different people defined the term 'Environment' in different ways. It is therefore a difficult task to give a general definition of the word 'environment'. However, generally the term 'environment' means surroundings. This includes all the situations under which an organism survives.

The word 'Environment' is derived from the French '*Environner*' which means to encircle or surround. Environment can be defined as the situation or setting that surround an organism or group of organisms or the complex of social and cultural conditions that affect an individual or community. The United Nations Environment Programme (UNEP) has defined environment as the outer bio-physical system in which people and organism exist. Hence, the environment really represents the interconnections, the dynamic relationships between organisms and their physical and biological surroundings.

Thus, we can say that the environment has to be regarded as a sphere of personal experience, a subject of interdisciplinary learning and research, a sphere of socially important act and a challenge to initiation and responsible action (Posch, 1949). Education is the provision of skills, knowledge and understanding of people to live successfully in their world. Education is a major priority that ensures improvements in the quality of lives of people, poverty alleviation and in reducing inequality. Therefore environment education is conceptualized as an integral formal component of education and not as a separate informal added part.

Though the concepts of education and the environment are quite different, they have a great influence on educational choices and approaches to environmental education. In the Belgrade Working Conference (1975) it has been emphasized that the concept of environment education should be a component of the educational process, with the aim of practical problems, interdisciplinary character, build with logical principles and contribute to welfare of the people. Its focus should be mainly on the initiation and the involvement of the learners and directed by the current and upcoming interests.

The Tbilisi Conference on Environment Education (1977) states that environment education is a process aimed at developing the world population that is aware of and concerned about the total environment and its associated problems, and has the attitudes, motivations, knowledge, commitment and skills to work individually and collectively towards solutions of current problems and the prevention of new ones. However, Stapp and his associates (1969) have defined

with a new approach. Environment Education is aimed at producing population that is well-informed about the biophysical environment and its associated problems, sensitive of how to help, solve these problems and motivated to work toward their solution.

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Hence environment education should help individuals to build knowledge on environment which can be developed through interaction with the environment and using the knowledge, and skills to conserve the environment. We should first try to understand the dimensions of environment education.

Environmental Education as Education Concerning the Environment

This view of environment education as education concerning the environment emphasizes environment as central point. It deals with environmental issues and problems, and the knowledge and skills to deal with the environmental problems. This view was developed in the beginning of environmental education movements. This analysis is based on the assumption if once the people were aware and ensured about the environment, they themselves will take action to solve environmental problems and also prevent further environmental degradation. Hence the emphasis is only on transmitting knowledge on environment. Hence the topics on bio-physical environment and the environmental problems due to human activity were included in the school curriculum through different subjects like social studies, vocational skills and science. Though the problems of biophysical environment are taught to the students, environment education is more than dissemination of knowledge about the environment and the problems of the environment.

Environmental Education is or through the Environment

As the earlier view was not able to make enough impact in preserving the environment this view of environment education is to see the education as in or through the environment states that mere transmitting knowledge is not enough and needs more than just learning about the environment. This view emphasized that the interpretation of the environment can be facilitated by the use of real life situations and more focus on the experiences in the environment. Therefore, environment education should involve activities like observation of the surroundings and learning through field studies. Here the environment itself is a learning source, means for investigating and detecting that enhances knowledge of the learner. The learners learn better when they learn through the environment and through involving in experimental and outdoor learning.

Environmental Education as Education for the Environment

This view focuses on developing attitudes or concern for the environment in the individuals that in turn can lead to address environment problems for preserving environment. This dimension focuses on the aspect of moral principles. This view makes the students learn through actions like awareness raising, negotiation, persuasion campaigns and rehabilitation of degraded areas. The aim of environment education is to develop student's abilities to act at the personal and societal level.

The above three components of environment education are interlinked and complement each other. In the first view the learner learns about the environment. In the second approach the students interact with the environment to understand through experience. In the final analysis, after getting knowledge and understanding, the learner takes deliberate action to sustain it. These components in fact makes one understand the process of learning environment education.

Hence environment education helps one to obtain knowledge and understanding, through experiences in the environment, which helps to develop positive attitudes, commitment and motivation towards taking action on the environment.

Nature of Environmental Education

Environmental education is a component of education that enables and educates people about their biophysical environment. In the last few decades, the concern over the environment is raising. Due to the population growth rate, followed by unchecked development, the environment and resources are depleting. Further destruction of the environment can be avoided by creating greater awareness and thereby identifying major environmental issues and by developing strategies to protect the ecosystem.

In our country, we know that many communities do not participate in environmental issues mainly due to lack of awareness and information, which are needed for the sustainable development of the nation. This lack of awareness is leading to deforestation, soil erosion, pollution and so on. It is only through education, which is the 'key social' strategy for conservation that people can gain information and understanding of biophysical environment.

Environmental education enables people in acquiring an understanding of the environment, by developing a sense of responsibility toward environmental problems and able to implement the solutions to these problems (Harvey, Inhurry, 1980). Environmental education is needed not only for students but also for the whole society as everyone depends on the environment as the resource base. Everyone should be taught about judicious utilization of biosphere in order to maximize the benefit not only to the present generation, but also to meet the needs of the future generations. Environmental education helps to make people conscious about physical, social and cultural aspects of the environment.

Principles of Environmental Education

The following are the basic principles of environmental education:

1. Environmental Education must be lifelong: We have to continuously upgrade our knowledge and skills to face the day to day challenges of environmental problems we come across. Through applying improved technology connected to the environment the ability of society and response of the individuals can be improved.

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2. Environmental Education should be for all. It should engage everyone. It should be for all and should include all sections of the community.
3. Environmental Education must be holistic. To address environmental challenges, people need to think broadly and understand systems, links, patterns and reasons. Hence a holistic appreciation of environmental problems is essential. For this, depending upon the situation, both formal and non-formal ways of environmental education should be introduced. The people working on environmental issue should also establish close association with each other through interdisciplinary approach. The formal and non-formal education settings should establish partnerships, and links should also be established between various groups with challenging interests on environmental issues.
4. Environmental Education must be realistic. Environmental education should never be only theoretical. This should lead to measures which result in better environmental outcomes involving practical and field orientation.
5. Environmental Education must be in harmony with societal and financial goals with an identical priority. This can be through improving the awareness of the people on environmental problems and the necessity of protecting the environment for better quality of life and sustainable development.
6. Environmental education needs to integrate the reality on condition that people with the knowledge, perceptivity and capability influence majority in the society, leading to development of the environment, along with other justifiable social and economic goals.

Objectives of Environmental Education

Environmental education helps to develop:

- **Awareness**: Helps to acquire understanding of the environment and its associated ills.
- **Knowledge**: To acquire basic awareness of the environment and human's role in the problems related to it.
- **Attitudes:** To acquire social values, and to develop concern and motivation to protect and preserve it.
- **Skills:** To acquire the skills to solve the environmental problems.
- **Participation**: Helps to develop a sense of accountability to solve environmental problems and to avoid future problems.
- **Evaluation capability**: Helps the persons and societal groups to appraise environmental actions and education programmes in terms of environmental, cost-effective, social, artistic and enlightening factors.

The objective of environmental education established by the Tbilisi Conference was to develop certain traits in the people and in societal organizations.

They were:

- Fundamental acceptance to awareness of the environment and its association with the people.
- Social standards and attitudes which are in accord with the environmental value.
- Developing Skills to solve environmental tribulations.
- Capacity to appraise environmental actions and instructive programmes.
- An intellect of accountability and importance towards the environment so as to make certain suitable proceedings to solve environmental problems.

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The conference has outlined a number of guiding principles to meet the above objectives:

- It focused on the nature of environmental education – as onward looking and as an incessant life long process, regard environment in its totality, and to follow a problem solving and interdisciplinary and multidisciplinary approach.
- It outlined the strategies for the support of environmental education at the national level.

It focused on the pre-service and the in-service training of teachers in environmental education, preparation of teaching material and diffusion of information through mass media.

Check Your Progress

8. What do you mean by environmental education?
9. List some of the basic principles of environmental education.

10.7 EDUCATION OF WOMEN

Constitutionally, Indian women and men have been granted equal status and rights, but on practical grounds, women still lag behind men in various life activities due to gender discrimination. Hence, to give better growth opportunities to Indian women, according to their special interests and legitimate demands, courses of study and employment facilities should be provided. The curriculum should be modified in accordance with the unique all-round responsibilities, including domestic demands, of Indian women. Co-education should be permitted for better exposure in life and to generate healthy competition. Women should be trained in various professional courses just like their male counterparts.

India requires a large number of women teachers for primary and secondary schools. Hence, more training colleges should be opened for training of women

teachers and more seats for women should be reserved in training colleges. Similarly, more seats should be reserved for women candidates in medical, engineering and other professional colleges. This will facilitate the growth of women in various sectors of life. If trained women workers—lady doctors, teachers and so on—are sent to work in rural areas, they should be given higher salaries and other facilities like residence and other essential amenities for obvious reasons. Safety and security of women is another feature that needs to be taken care of.

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The major problems of women's education in India are as follows:

(i) **Traditional prejudices:** The traditional prejudices still operate in backward and rural areas to a great extent. The lower and poorer sections of the society fall an easy prey to superstitions and traditional prejudices against women.

(ii) **Absence of separate schools:** Due to paucity of funds, it is not possible to provide separate schools for girls, especially in rural areas. Many rural folks, even in changing times, are not prepared to send their daughters to the mixed schools. In the state of Punjab, where per capita income is the highest in India, people do not mind sending their girls to coeducational schools. But in other states, like Rajasthan, Uttar Pradesh, Bihar or Haryana, parents have objection on co-education, especially at the secondary stage.

(iii) **Lack of women teachers:** There is shortage of qualified women teachers in all states. Even in places were qualified women teachers are available, they are not willing to go to far-flung villages to teach. This is also a reason why separate schools for girls are not possible.

(iv) **Household work:** Girls, generally in all parts of the country in India, take care of domestic work, partly as a necessity and partly as training for their future domestic life. Taking care of younger siblings at home also curtails the schooling opportunities for a girl child. Such conditions turn into reasons by parents for justifying not sending their daughters to schools.

(v) **Poverty:** Poverty of the parents compels them to use the labour of their children, either at home or in the fields. A female child is still considered an economic burden on the Indian household, and hence, education of girls is assumed to increase this burden.

(vi) **Child marriages:** Child marriages are still in vogue in rural areas. After the marriage at an early age, it is not considered proper for a girl to attend school. Hence, an early marriage prevents a girl child from going to school.

(vii) **Lack of provision on certain subjects:** Previously, while framing curriculum, no attention was paid to the needs of the girls. Even today, the co-educational institutions do not have better provisions on the subjects preferred by girl students. Unless proper care is taken to

provide co-curricular activities and special courses based on interest, aptitude and needs of girls, the schools cannot register better attendance and strength in their classes.

We can summarize the problems of women's education in India as follows:

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- Lack of proper social attitudes in the rural and backward areas on education of girls
- Lack of educational facilities in rural areas
- Economic backwardness of the rural community
- Conservative nature on co-education
- Lack of suitable curriculum
- Lack of proper incentives to parents and their daughters
- Lack of women teachers
- Lack of proper supervision and guidance due to inadequate women personnel in the inspectorate
- Uneducated adult women and lack of social education
- Social evil practices against women
- Inadequate publicity
- Indifference of village panchayats

Measures for Promoting Women's Education

From time to time, the basic measures that have been suggested for promoting women's education in India are given below.

I. Creating proper social attitude on education of girls in rural and backward areas: In this regard, the following measures may be taken:

(i) To study the problems relating to women's education and to get detailed scientific data, a thorough research should be taken up by the Institutes of Education and allied institutions in different states and coordinated at the national level.

(ii) Separate schools for girls at the middle and high school stages should be established where needed.

(iii) School mothers in co-education primary schools should be appointed.

(iv) Crèches and nursery classes wherever possible should be opened.

(v) Public opinion in favour of girls' education should be created.

II. Providing adequate educational facilities in backward and rural areas: The target should be to have at least one primary school within a radius of one kilometre from every child's home. Following steps need to be taken:

(i) Hostel for girls at the middle and high school stages.

(ii) Maintenance stipend should be given to girls residing in hostels for meeting their lodging and other expenses, at least in part.

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(iii) Subsidized transport facilities, wherever necessary and possible, should be provided.

(iv) Priority should to be given to the construction of suitable buildings for girls' schools.

(v) Free education for girls.

III. Removing economic backwardness: A large number of children in the rural areas are under-nourished. They hardly have a square meal a day. Unless the parents are given some kind of economic relief, it will be impossible to promote women's education. Following measures should prove very useful:

(i) Free uniforms and free books to the needy and deserving girl students should be provided.

(ii) Attendance scholarships, which serve as a compensation to the parents, should be given. This will also ensure reduction of wastage and stagnation in education.

(iii) Mid-day meals should be made available free of charge.

IV. Provision of suitable curriculum: Curriculum, by and large, has not met the requirements of women. Following suggestions made by Hansa Mehta Committee (1962) deserve careful consideration:

(i) No differentiation should be made in the curricula for boys and girls at the primary and middle stages of education.

(ii) Steps should be taken to improve the instruction of home economics.

(iii) Steps should be taken to improve the teaching of music and fine arts, and liberal financial assistance should also be made available to girls' schools for the introduction of these courses.

(iv) Universities should review periodically the provision they have made for the courses designed to meet the special needs of girls, and take necessary action to remove the deficiencies discovered.

V. Proper incentives to parents and girls: The following measures have been suggested:

(i) The number of attendance scholarships should be increased.

(ii) The allowance of the school mothers should be enhanced so that qualified women may be attracted to take up the work.

(iii) The rate of maintenance stipend should be adequately increased in view of the inflationary trends in the economy.

(iv) The number of sanitary blocks in co-educational primary schools should be adequately increased.

(v) Larger allocation of funds should be made in the budget for construction of hostels for girls.

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VI. **Provision for providing adequate number of women teachers:** In this regard, the following steps are suggested:

   (i) A large number of training institutions have to be provided for women, especially in the backward states. These institutions should generally be located in rural areas, and they should generally recruit their trainees from that area.

   (ii) Condensed course centres should be started in these backward areas to open up avenues to the adult unqualified women for employment as teachers. Wherever possible, such centres should be attached to the training institutions.

   (iii) A large number of quarters for women teachers in primary schools should be provided, particularly in rural areas.

   (iv) All women teachers employed in rural areas should be given adequate rural allowance.

   (v) Special stipends should be given to girls in high schools and in higher secondary schools with aptitude for teaching.

   (vi) Whenever possible, husbands and wives should be posted in the same place even if they work in different government departments.

   (vii) Free training should be imparted with stipends to all candidates of training institutions.

   (viii) In-service education training should be given to untrained women teachers who have put in at least two years of service. The period of training of education should be treated as on duty.

VII. **Proper supervision and guidance:** For providing proper guidance and supervision, following steps should be taken:

   (i) Increase in the number of women inspecting officers, particularly in the backward states, at different levels including state level and directorate level.

   (ii) Provision of adequate transport for all district women inspecting officers should be laid.

   (iii) Adequate office staff and equipment should be provided.

   (iv) Residential facilities should be given to all women officers at all levels.

   (v) Adequate funds for rural developments should be available at the disposal of the state councils.

VIII. **Facilities for education of adult women:** Girl's education and education of adult women suffers on account of lack of social education. This problem can be tackled in the following ways:

   (i) By opening adult literacy classes in large number.

   (ii) By teaching simple skills like sewing, knitting, handicrafts etc., and teaching basic principles of healthy living.

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(iii) By invoking better attitude towards community, family planning, fighting against superstitions and other social evils etc.

This programme can be more effective when the Education Department works in cooperation with other departments concerned, like the Community Development, Health and Social Welfare.

IX. Eradicating social evils: Eradicating social evils that stand in the way of girls' education, such as early marriage, bounded labour, dowry, domestic violence, prostitution, caste barriers and so on, will help in promoting women's education. Social activists, self-help groups and other voluntary organizations can play a crucial role in motivating people to educate their daughters.

X. Wide systematic publicity: For educating the parents to take interest in the education of girls, Press and electronic media may be used extensively.

XI. Awards to panchayats: Panchayats should be given some motivation to promote education of women in their areas.

Check Your Progress

10. What are the major problems of women's education in India?
11. What measures can be taken to create proper social attitude on education of girls in rural and backward areas?

10.8 ANSWERS TO 'CHECK YOUR PROGRESS' QUESTIONS

1. It is an education to make you aware of the processes and consequences of human population growth on the quality of life and the environment, so that you may be in position to decide for yourself how many children you should have. Sloan Wayland has defined population education as 'population awareness and population dynamics' and questioned the very appropriateness of sex and family life approaches. According to a seminar organized by the UNESCO, 'Population education in a broad way can be defined as an educational programme which provides for a study of the population situation in family, community, nation and the world, with the purpose of developing in the students rational and responsible attitudes and behaviours towards the situation.'
2. The population education has been divided into five components which reflect the scope of this subject. The five components are:
   i. Population Dynamics
   ii. Family Life Education

iii. Human Reproduction
iv. Food and Nutrition
v. Maternal and Child Welfare

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3. One of the major obstructing factors of the improvement of quality of life of the people is population growth, especially in developing countries. If more people live in an environment than the environment can sustain, the quality of life per person living in that environment goes down. Things like the quality of food and consumer goods go down to make up for this negative effect. An increase in population indicates that there will be more threat to biodiversity as plants will be cut down to accommodate people. Environmental pollution will increase as a result of which the quality of life will be affected. The more people there are, the fewer resources and less space there is for each individual person, and also society as a whole. Therefore, life quality decreases significantly. The more the people, the fewer are the jobs. It leads to more homeless people. The more people there are, the greater the crime rate as well. Therefore, quality of life is the result of population dynamics, available infrastructure and resource structure of an area.
4. There is no doubt that ignorance about sex and sex related problems is one of the main causes of unhappiness and maladjustment in life. Moreover, research shows that a large number of anti-social acts are committed by the adolescents as proper and timely information on sex not being made available to them. Therefore, there is an urgent need of imparting sex education to the youngsters and adolescents.
5. To make this education effective, it must commence from the earliest stages of a child's life. It is the family where foundation is laid of a child's personality and where, by stages, his outlook on life and character are moulded. Parents have, thus, to play a central role in the scheme at all stages. It is in fact, a part of family life education that goes on from infancy to maturity. Sex education is, therefore, essentially a preventive measure to help children become emotionally stable and develop character. This knowledge should be given to make them aware of the pitfalls of early life and should create in their minds sound moral values and proper attitudes.

   During the school stages, the teachers must play a very important role in giving requisite knowledge to the students and guide them to acquire a sense of regard and helpfulness towards the other sex. The instruction should be given according to the age of the student and his state of physical, mental and psychological development. Such information should be integrated with other subjects such as civics, nature study, biology and physiology.

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6. Some of the causes of value crisis in present society are:
    i. Challenges of traditional values: In the past, the society in which we were living was well protected and self-contained. But today the technological advances have brought many changes at the personal, racial, social and national levels. Man has to adjust himself to all the variations, and this has given rise to a crisis in the value system.
    ii. Development of the attitude of cynicism: The attitude of people towards the existing value system is turning out to be negative. Rejection of the pre-existing values and not believing in formulating new ones has brought deterioration of the moral values.
    iii. Loss of leadership and ethical values in teachers: Teachers have three important functions to perform, i.e., to teach, set examples for others and have influential effect. But in this materialistic society teachers have lost their sense of devotion and dedication towards their profession. Teachers must themselves set examples for their students; only preaching will not help the students to follow the right beliefs and values.
    iv. Undue emphasis on literacy: Just getting a certificate or degree from college or university is not sufficient to qualify a person as literate. Even an illiterate can possess good qualities under the influence of right education, guidance and values.
    v. Impact of materialistic philosophy on modern society: In the mad race of money and power people are neglecting values. For people only materialistic things are more important rather than living an ethical life.
7. Value-oriented education is important due to the following reasons:
    - Value education helps develop a healthy and a balanced personality.
    - It enables a child to earn his livelihood and to acquire material prosperity.
    - It develops vocational efficiency.
    - It develops character and morality in children.
    - It makes children ideal citizens.
    - It helps in reconstruction of experiences.
    - It enables children to adjust to their environment.
    - It promotes social efficiency.
    - It develops cultural values.
    - It inculcates the feeling of national integration.
8. Environmental education is defined as 'the education that helps individuals to become more knowledgeable about their environment and to develop

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responsible environmental behaviour and skills so that they can improve the quality of the environment' (UNESCO, 1978). The Tbilisi Conference on Environment Education (1977) states that environment education is a process aimed at developing the world population that is aware of and concerned about the total environment and its associated problems, and has the attitudes, motivations, knowledge, commitment and skills to work individually and collectively towards solutions of current problems and the prevention of new ones.

9. The following are the basic principles of environmental education:
   i. Environmental Education must be lifelong: We have to continuously upgrade our knowledge and skills to face the day to day challenges of environmental problems we come across. Through applying improved technology connected to the environment the ability of society and response of the individuals can be improved.
   ii. Environmental Education should be for all. It should engage everyone. It should be for all and should include all sections of the community.
   iii. Environmental Education must be holistic. To address environmental challenges, people need to think broadly and understand systems, links, patterns and reasons. Hence a holistic appreciation of environmental problems is essential. For this, depending upon the situation, both formal and non-formal ways of environmental education should be introduced. The people working on environmental issue should also establish close association with each other through interdisciplinary approach. The formal and non-formal education settings should establish partnerships, and links should also be established between various groups with challenging interests on environmental issues.
   iv. Environmental Education must be realistic. Environmental education should never be only theoretical. This should lead to measures which result in better environmental outcomes involving practical and field orientation.
   v. Environmental Education must be in harmony with societal and financial goals with an identical priority. This can be through improving the awareness of the people on environmental problems and the necessity of protecting the environment for better quality of life and sustainable development.
10. The major problems of women's education in India are as follows:
   i. Traditional prejudices: The traditional prejudices still operate in backward and rural areas to a great extent. The lower and poorer

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sections of the society fall an easy prey to superstitions and traditional prejudices against women.

ii. Absence of separate schools: Due to paucity of funds, it is not possible to provide separate schools for girls, especially in rural areas. Many rural folks, even in changing times, are not prepared to send their daughters to the mixed schools. In the state of Punjab, where per capita income is the highest in India, people do not mind sending their girls to coeducational schools. But in other states, like Rajasthan, Uttar Pradesh, Bihar or Haryana, parents have objection on co-education, especially at the secondary stage.

iii. Lack of women teachers: There is shortage of qualified women teachers in all states. Even in places were qualified women teachers are available, they are not willing to go to far-flung villages to teach. This is also a reason why separate schools for girls are not possible.

iv. Household work: Girls, generally in all parts of the country in India, take care of domestic work, partly as a necessity and partly as training for their future domestic life. Taking care of younger siblings at home also curtails the schooling opportunities for a girl child. Such conditions turn into reasons by parents for justifying not sending their daughters to schools.

v. Poverty: Poverty of the parents compels them to use the labour of their children, either at home or in the fields. A female child is still considered an economic burden on the Indian household, and hence, education of girls is assumed to increase this burden.

vi. Child marriages: Child marriages are still in vogue in rural areas. After the marriage at an early age, it is not considered proper for a girl to attend school. Hence, an early marriage prevents a girl child from going to school.

11. In this regard, the following measures may be taken:

i. To study the problems relating to women's education and to get detailed scientific data, a thorough research should be taken up by the Institutes of Education and allied institutions in different states and coordinated at the national level.

ii. Separate schools for girls at the middle and high school stages should be established where needed.

iii. School mothers in co-education primary schools should be appointed.

iv. Crèches and nursery classes wherever possible should be opened.

v. Public opinion in favour of girls' education should be created.

10.9 SUMMARY

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- Sloan Wayland has defined population education as 'population awareness and population dynamics' and questioned the very appropriateness of sex and family life approaches.
- The population education is primarily an educational measure. It is not propaganda for any particular set of theories, but an open-ended search for knowledge understanding and an awareness of population as a potent force.
- Population education promotes among the youth and adults the capacity to acquire an insight into the consequence both at the micro level of family and at the macro level of community of factors, such as family size, population growth and distribution.
- One of the major obstructing factors of the improvement of quality of life of the people is population growth, especially in developing countries. If more people live in an environment than the environment can sustain, the quality of life per person living in that environment goes down
- Quality of life is the result of population dynamics, available infrastructure and resource structure of an area. India being a top scorer in population growth in the world has been suffering from problems relating to socio-economy and quality of life since long decades.
- Population increase can affect the quality of life, decreases the availability of food per capita, Gross National Product (GNP), per capita income, educational and employment opportunities, health facilities, sanitation, housing, etc.
- There is no doubt that ignorance about sex and sex related problems is one of the main causes of unhappiness and maladjustment in life. Moreover, research shows that a large number of anti-social acts are committed by the adolescents as proper and timely information on sex not being made available to them.
- In the past, the society in which we were living was well protected and self-contained. But today the technological advances have brought many changes at the personal, racial, social and national levels. Man has to adjust himself to all the variations, and this has given rise to a crisis in the value system.
- The National Policy on Education (NPE; 1986) highlights the urgent need for value education in view of the growing erosion of essential values and increasing cynicism in society. With a well-designed system of curriculum, it is possible to make education a forceful tool for the cultivation of desirable ethical, moral, spiritual and social values.

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- The objectives of introducing 'Socially Useful Productive Work/Work Experience (SUPW/WE)' in the schools is to help in the realisation of these goals.
- SUPW/WE in schools gives an opportunity to revive and keep alive the rich heritage and cultural traditions of our country and encourages creativity among students.
- Environmental education is defined as 'the education that helps individuals to become more knowledgeable about their environment and to develop responsible environmental behaviour and skills so that they can improve the quality of the environment'.
- The word 'Environment' is derived from the French '*Environner'* which means to encircle or surround. Environment can be defined as the situation or setting that surround an organism or group of organisms or the complex of social and cultural conditions that affect an individual or community.
- Environment education should help individuals to build knowledge on environment which can be developed through interaction with the environment and using the knowledge, and skills to conserve the environment.
- Environmental education is a component of education that enables and educates people about their biophysical environment. In the last few decades, the concern over the environment is raising.
- In our country, we know that many communities do not participate in environmental issues mainly due to lack of awareness and information, which are needed for the sustainable development of the nation.
- Environmental education enables people in acquiring an understanding of the environment, by developing a sense of responsibility toward environmental problems and able to implement the solutions to these problems
- Environmental Education must be lifelong: We have to continuously upgrade our knowledge and skills to face the day to day challenges of environmental problems we come across.
- Eradicating social evils that stand in the way of girls' education, such as early marriage, bounded labour, dowry, domestic violence, prostitution, caste barriers and so on, will help in promoting women's education.

10.10 KEY WORDS

- **Population dynamics:** This is the branch of life sciences that studies the size and age composition of populations as dynamical systems, and the biological and environmental processes driving them.

- **Environmental pollution:** It is defined as "the contamination of the physical and biological components of the earth/atmosphere system to such an extent that normal environmental processes are adversely affected.
- **Physiology:** This is the scientific study of the functions and mechanisms which work within a living system. As a sub-discipline of biology, the focus of physiology is on how organisms, organ systems, organs, cells, and biomolecules carry out the chemical and physical functions that exist in a living system.
- **SUPW:** Socially Useful Productive Work (SUPW) is a subject in schools where students can choose from a number of vocational education activities.
- **Interdisciplinary learning:** This is a teaching approach that combines the curricular objectives and methods from more than one discipline focusing on a central theme, issue, problem or work.

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10.11 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. What is the aim of population education?
2. Write in brief about the interdependence of population and quality of life.
3. Why do we need a comprehensive programme of value education?
4. What are the main objectives of environmental education?
5. What measures should be taken to promote women's education in India?

Long-Answer Questions

1. Discuss why population education needs to be taken as a holistic educational programme in India.
2. "Quality of life is the result of population dynamics." Justify this statement with relevant data.
3. Critically analyse the scope of sex education in India.
4. Analyse the objectives of introducing 'Socially Useful Productive Work/ Work Experience (SUPW/WE)' in the schools.
5. Discuss the nature and scope of environmental education.

10.12 FURTHER READINGS

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UNIT 11 NATIONAL POLICIES OF EDUCATION

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Structure

11.0 INTRODUCTION

Scholars and historians agree that system of higher education has been prevalent in India since the ancient times, though levels of education and the titles awarded after achieving specific levels of education changed from time to time. However, it was during the British era that one could see an overhaul of higher education. But as was expected, after Independence, it witnessed a systematic transformation thanks to serious efforts by the government which established various committees headed by prominent academics. This resulted in tremendous growth in the number of universities and accelerated the drive for students' enrolment in various colleges and institutions.

The establishment of regulatory bodies like University Grants Commission (UGC), formation of National Policy of Education, 1986 and setting up of statutory bodies to look into technical and professional courses further propelled the role and scope of technical education. Several universities, government, deemed and private, were constituted to cater to the growing demands for degrees in undergraduate, graduate, postgraduate and PhD levels. Economic liberalization in the 1990s has further opened the higher education in India. Institutions and regulatory bodies like UGC, AIU, AICTE, ICSSR, CSIR, and ICA were set up to develop specialized courses and skills for students.

In addition to discussing aims and objectives of higher education and National Education policy, this unit enumerates the formation of universities, technical and professional institutes of national importance and statutory bodies to accelerate the growth of higher learning in India.

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11.1 OBJECTIVES

After going through this unit, you will be able to:

- Understand system of higher education in India
- Analyse structure, aims and objectives of higher education
- Discuss the formation of general and technical education
- Elaborate the Role of UGC, AIU, AICTE, ICSSR, CSIR, and ICA
- Learn about types of universities and equivalent institutes of higher learning

11.2 NATIONAL POLICIES OF EDUCATION: THEIR IMPLICATIONS

The tradition of higher education is age old in India. Even in the pre-Vedic ages, there used to be three types or levels of education in India. The first stage of education used to complete after twelve years. The pass outs of this education were given the title of '*Snatak*'. The second level of education used to continue for another 12 years. These students were given the title of '*Vasu*'. The third stage of education prolonged up to 36 years, and the degree or title of '*Rudra*' was awarded to the pass outs. The last stage of education used to prolong up to forty-eight years. The scholars who used to pass this level of education were considered to be the experts of their fields and were given the degree of '*Aditya*', which means 'sun' or the source of light, life and energy.

The system of specialized or higher education continued consistently in late Vedic, Buddhist and Muslim periods. The time period of various levels of education and the titles awarded after achieving specific levels of education changed from time to time. For example, in Buddhist education the scholars were called '*Bhikkhus*' after passing the higher level of education. In medieval education, there were titles such as 'Aalim', 'Kamil', 'Fazil' that were awarded to the passed outs of higher levels of education.

The system of higher education was overhauled with the intervention of the British during the colonial period. Universities were established, colleges were affiliated and new nomenclature for degrees and certificates were decided. Later, especially after the recommendations of Charles Wood's Dispatch in 1854, there came a revolution in the quarter of higher education in India. The reports of Indian University Commission (1904) and Calcutta University Commission (1917) also set milestones in the development of international standard higher education in India.

In the post-Independence era, the University Education Commission (or Dr. Radhakrishnan Commission) (1948), National Education Commission or Kothari Commission (1964–66), National Education Policy (1968), National

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Education Policy (1986) and its programme of action (1992) are a few notable names linked with higher education in India. As a result, the number of universities has come up from 27 in 1951 to 570 in 2011. Enrolment of students also has crossed 1, 50, 00,000 mark in comparison to 3, 60,000 in 1951. Expenditure upon the establishment and management of higher education has also gone up many times since Independence.

In the First Five-Year Plan (1951–56), the total amount spared for university education was merely 14 crore rupees, whereas the amount allocated for higher education in the Tenth Five-Year Plan was 3,607 crore rupees. These efforts have yielded promising results and Indian higher education is leaping in quality and quantity. Yet, there is much to be done to meet the international standards in the field of higher education.

Objectives of higher education have also undergone tremendous change in the course of its development since the ancient times. The process of change in the objectives of higher education has several distinct stages viz., the Vedic age, Buddhist Age, Medieval Age, Colonial Age and Post-Independence Age. Radhakrishnan Commission (1948) and Kothari Commission (1964–66) have done much to distinguish the objectives of higher education. The National Policy of Education, 1986, has redesigned the objectives of higher education and tried to make relevant and competitive as per the needs of time and needs of the progressive India. As per the policy, the chief objectives of higher education in India are to:

1. Reflect upon the critical social, cultural, economic, moral and spiritual issues.
2. Make the higher education proactive and research oriented in view of the dynamic society constantly entering the unchartered areas of knowledge and functioning.
3. Strengthen and expend faculties, departments, facilities and quality of academics, experiments, teaching–learning strategies and material, as well as human resource in order to make education more and more competent and competitive.
4. Upgrade the management, leaning and research systems of the universities and colleges.
5. Ensure the interest and success of private players in the field of education, the government needs to create autonomous departments within universities on a selective basis.
6. Redesign the existing programmes and courses to meet the expectations and requirements of specialization with special emphasis on the competence related to the languages.
7. Increase flexibility in the combination of programmes to facilitate inter-disciplinary research and development.

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8. Enhance state level planning and coordination of higher education through national councils and University Grants Commission (UGC) to keep a watch on the standard of education.
9. Upgrade and enhance the intervention of science and technology in transactional methodology.
10. Employ qualified and capable manpower on merit basis and also make arrangements for teacher preparation.
11. Enhance support to ensure high level research in higher education institutions and universities. Suitable mechanism will be set up by the UGC to ensure coordination among the universities in research areas, especially in science and technology.
12. Pay special attention to enhance research in humanities and social science to fulfil the need for the synthesis of knowledge. Efforts will be made to research and secure the ancient knowledge and to relate it with the contemporary reality.
13. Develop a mechanism of sharing of human and material resource among the institutions of higher education to make-up the deficiency the quality implements in the field of research and development in higher education.
14. Establish open universities to augment opportunities for higher education as an instrument of democratizing education.
15. Take-up appropriate steps to de-link degree from jobs in selected areas.
16. Establish rural universities on the lines of Mahatma Gandhi's ideas of basic education and mass education.

Some of the aims of university education, as put down by Kothari Commission (1964–66), are as follows:

1. The aim of higher education is to seek and cultivate new knowledge, to engage vigorously and fearlessly in the pursuit of truth, and to interpret old knowledge and benefits in the light of new needs and discoveries
2. The aim of higher education is to provide right kind of leadership in all walks of life.
3. The aim of higher education is to supply society with competent men and women trained in the fields of agriculture, arts, medicine, science and technology and different other professions.
4. The aim of higher education is to take the attitudes and values for developing good life of an individual and the society.

11.2.1 Structure of Higher Education in India

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The structure of higher education has two dimensions. The first dimension is that of the types of institutions, their establishment and management, which in short is termed as the 'institutional framework or structure'. The other dimension is the degrees and certificates awarded at the culmination of the programme. This specification is usually termed as 'academic structure of higher education'. Both types of structure are explained hereunder with required details.

A. Institutional structure of higher education

As far as the institutional framework is concerned, it consists mainly of seven types of institutions. These are as follows:

1. Central universities
2. State universities
3. Open universities
4. Institutions established by state legislative act such as private universities
5. Deemed universities
6. Institutes of national importance
7. Colleges affiliated with universities.

At present, there are 42 central universities, 286 state universities, 14 open universities, 129 deemed universities, 115 private universities or institutions established by state legislative acts of various states of India, 39 institutes of national importance, and more than 52,000 colleges affiliated with universities. These include both the colleges aided by the government and unaided i.e., not receiving any aid from any government. These institutions are opened by the central government or the state governments, private education societies and non-governmental organizations (NGOs). These are regulated by specific bodies such as University Grants Commission (UGC), All India Council for Technical Education (AICTE), National Council for Teacher Education (NCTE), Medical Council of India (MCI), and Distance Education Council of India (DEC).

There is an active and effective system for ensuring and maintaining quality in the institutions of higher education. Various regulatory bodies have constituted specific organizations to ensure and monitor quality concerns in specific types of universities, colleges and institutes through auditing and inspection at given intervals. One of such regulatory bodies is National Assessment and Accreditation Council (NAAC), which was established by the UGC in 1994. A similar function related to technical education is conducted by the National Board of Accreditation (NBA), which was set up by AICTE in 1994; and in case of agricultural education conducted by the Accreditation Board (AB), which was set up by Indian Council of Agricultural Research (ICAR) in 1996.

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B. Academic structure of higher education

Next to the institutional structures of the institutions of higher education in India, there lies the system of programmes and courses and their time frame. In this context, the structure of education may be categories into three layers:

1. Under-graduate programmes (Bachelor's degree)
2. Post-graduate programmes (Master's degree), and
3. Research programmes (Doctoral degree).

A detailed description of the academic structure of higher education in India is explained hereunder with required particulars:

1. **Under-graduate (bachelor's degree) programmes:** It is usually an undergraduate academic degree awarded generally for a programme starting after schooling and lasting up to three or four years. This may have varied nomenclatures depending upon the type of bachelor programme opted. For example, Bachelor of Arts (BA) after humanities programme, Bachelor of Commerce (B Com) after commerce stream, Bachelor of Science (B Sc.) after undergoing a programme in sciences stream, Bachelor of Technology (B Tech.) after technological programmes, Bachelor of Business Administration (BBA) after management programmes, and so on.
2. **Post-graduate (master's degree) programmes:** It is an academic degree usually awarded for completion of a postgraduate programme offered after three or four graduation programme. Post-graduate programmes long usually from one to two years in duration. Like graduation the degree of post-graduate programmes also has subject specific nomenclature. For example Master of Arts (MA) after humanities programme, Master of Commerce (M Com) after commerce stream, Master of Science (M Sc.) after undergoing a programme in sciences stream, Master of Technology (M Tech.) after technological programmes, Master of Business Administration (MBA) after management programmes and like that.
3. **Doctoral (research degree) programmes:** It is an academic degree of the highest level. In India, there are two types or research degrees. The first one is offered after post-graduation in some discipline as the degree of Master of Philosophy (MPhil). The duration of this degree programme happens to be usually from one to one and a half years. The other is awarded after going through a full scale research programme and approval of thesis. This degree is recognized as Doctor of Philosophy or doctorate (PhD). Traditionally, the award of a doctorate implies recognition of the candidate as an equal by the university faculty under which he or she has studied.

Regulatory Structure of Higher Education

The UGC regulates universities and colleges teaching general subjects. It has the power to determine and maintain standards and disburse grants. Technical

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education is regulated by the AICTE. Technical institutions can provide degree programmes if they are affiliated with a university (this condition is waived for some institutions). Affiliation is not required if the institution runs only diploma programmes. The Central Advisory Board of Education (CABE) co-ordinates between the centre and the states.

The following table provides the regulatory structure for different type of higher education institutions in India.

Table 11.1 *Regulatory Structure of Higher Education in India*

Types of Institutions	Regulatory Structure
1. Universities	Set up by Act of Parliament or State legislatures (can be public or private).
2. Deemed to be universities	Central govt grants status on recommendation from UGC. Have autonomy to set their own syllabus, admission criteria and fees.
3. Colleges	Affiliation to a public university is mandatory. Can be aided, unaided or autonomous.
4. Institutes of National Importance	Status granted by an Act of Parliament (IITs, NITs etc). Can award degrees without affiliating with a university.
5. Technical education (central govt funded; state govt funded; and self-financed institutions)	AICTE can approve setting up of new institutions and introduction of new courses. It includes engineering, technology, management, architecture, town planning and pharmacy.
6. Institutions offering medical, legal, dental, nursing, pharmacy, teacher education.	Regulated by 13 professional councils such as the Medical Council of India, Bar Council of India, and Dental Council of India who can recognise courses and promote the institutions.

Source: University Grants Commission Act, 1956; The All India Council for Technical Education Act, 1987, Institutes of National Importance; Annual Report: 2009-10, Ministry of Human Resource Development; "Professional Councils" in the UGC website.

National Knowledge Commission (NKC) recommendations on the regulatory structure of higher education

The NKC, which submitted its report in March 2009, has made the following recommendations with regard to the regulatory structure of higher education in India:

- An Independent Regulatory Authority for Higher Education (IRAHE) should be established through an Act of Parliament to set standards and determine eligibility criteria for new institutions.
- The IRAHE shall also settle disputes and licence accreditation agencies (both public and private).
- UGC shall only disburse public funds. Abolish all professional bodies except the MCI and BCI who shall provide licences to those wishing to enter the profession.

Yash Pal Committee Recommendations on the structure of higher education

The Yash Pal Committee, which submitted its report in June 2009, has made the following recommendations with regard to the regulatory structure of higher education in India:

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- A National Commission of Higher Education and Research (NCHER) should be established through a Constitutional amendment, to replace UGC, AICTE, NCTE and DEC.
- Professional bodies such as MCI and BCI should conduct qualifying examinations.
- NCHER shall create norms for accreditation and certify accrediting agencies, independent of the government.
- A National Education Tribunal should be constituted to adjudicate disputes.

Higher Education in NPE of 1986

The issue of higher education has been discussed earlier in the National Policy of Education (NPE) of 1986. It contains plans and details about the following:

(i) Early childhood care and education
(ii) Elementary education
(iii) Child centred approach
(iv) School facilities
(v) Non-formal education
(vi) Secondary education
(vii) Vocationalization

All these areas are tried to be given new look and philosophy to meet the needs and aspirations of constantly developing Indian society. The issue of higher education is given special importance by stating it to be 'an opportunity to reflect on the critical social, economic, cultural, moral and spiritual issues facing humanity. It contributes to national development through dissemination of specialized knowledge and skills'. These words are sound evidences of the importance given to the arena of higher education in the policy. The text devoted to the redefining and restructuring higher education through the policy is given hereunder in original form from the NPE, 1986:

- Higher education provides people with an opportunity to reflect on the critical social, economic, cultural, moral and spiritual issues facing humanity. It contributes to national development through dissemination of specialized knowledge and skills. It is therefore a crucial factor for survival. Being at the apex of the educational pyramid, it has also a key role in producing teachers for the education system.
- In the context of the unprecedented explosion of knowledge, higher education has to become dynamic as never before, constantly entering uncharted areas.
- In view of the need to effect an all-round improvement in the institutions, it is proposed that, in the near future, the main emphasis will be on the consolidation of, and expansion of facilities in, the existing institutions.

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- Urgent steps will be taken to protect the system from degradation.
- In view of mixed experiences with the system of affiliation, autonomous colleges will be helped to develop in large numbers until the affiliating system is replaced by a freer and more creative association of universities with colleges. Similarly, the creation of autonomous departments within universities on a selective basis will be encouraged. Autonomy and freedom will be accompanied by accountability.
- Courses and programmes will be redesigned to meet the demands of specialization better. Special emphasis will be laid on linguistic competence. There will be increasing flexibility in the combination of courses.
- State level planning and coordination of higher education will be done through Councils of Higher Education. The UGC and these Councils will develop coordinative methods to keep a watch on standards.
- Provision will be made for minimum facilities and admission will be regulated according to capacity. A major effort will be directed towards the transformation of teaching methods. Audio-visual aids and electronic equipment will be introduced; development .of science and technology curricula and material, research, and teacher orientation will receive attention. This will require preparation of teachers at the beginning of the service as well as continuing education thereafter. Teachers' performance will be systematically assessed. All posts will be filled on the basis of merit.
- Research in the universities will be provided enhanced support and steps will be taken to ensure its high quality. Suitable mechanisms will be set up by the UGC for co-coordinating research in the universities, particularly in thrust areas of science and technology, with research undertaken by other agencies. An effort will be made to encourage the setting up of national research facilities within the university system, with proper forms of autonomous management.
- Research in Indology, the humanities and social sciences will receive adequate support. To fulfil the need for the synthesis of knowledge, inter-disciplinary research will be encouraged. Efforts will be made to delve into India's ancient fund of knowledge and to relate it to contemporary reality. This effort will imply the development of facilities for the intensive study of Sanskrit and other classical languages. An Autonomous Commission will be established to foster and improve teaching, study and research in Sanskrit and other classical languages.
- In the interest of greater coordination and consistency in policy, sharing of facilities and developing interdisciplinary research, a national body covering higher education in general, agricultural, medical, technical, legal and other professional fields will be set up.

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To sum up, the highlights of the plans and procedures pertaining to higher education in the National Policy of Education, 1986, are summarized as follows:

- Elevating the standard of aims and functions of higher education.
- Emphasising consolidation and expansion of facilities in existing institutions.
- Opening a large number of autonomous institutions.
- Regulating the admission process in the higher education institutions.
- Redesigning the programmes of courses in higher education.
- Enhancing research and development facilities in universities and colleges.
- Establishment of open universities for providing continuing or distance education.

Check Your Progress

1. After Independence, how did various Commissions contribute to the growth of higher education?
2. List the various types of institutions in higher education in India.
3. What are the recommendations of the Yash Pal Committee with regard to the regulatory structure of higher education in India?

11.3 GENERAL AND TECHNICAL EDUCATION

The technical education system in the country covers courses and programmes in Engineering, Technology, Management, Architecture, Town Planning, Pharmacy, Applied Arts and Crafts. The Ministry of Human Resource Development caters to programmes at diploma, undergraduate, postgraduate and research levels.

The technical education system at the central level comprises:

- The All India Council for Technical Education (AICTE), which is the statutory body for proper planning and coordinated development of the technical education system;
- Seven Indian Institutes of Technology (IITs) which are institutions of national importance;
- Six Indian Institutes of Management (IIMs),
- Five Deemed-to-be-Universities, namely, Indian Institute of Science (IISc), Bangalore, Indian School of Mines (ISM), Dhanbad, School of Planning & Architecture (SPA), New Delhi, Indian Institute of Information Technology and Management (IIITM), Gwalior and Indian Institute of Information Technology (HIT), Allahabad,

- Four Boards of Apprenticeship Training (BOATs), etc. At present there are twenty National Institutions of Technology (NITS).

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Other technical institutes in the central sector, such as the National Institute of Foundry and Forge Technology (NIFFT), Ranchi, the National Institute of Industrial Engineering (NITIE), Mumbai, Sant Longowal Institute of Engineering & Technology (SLIET), Longowal, North Eastern Regional Institute of Science & Technology (NERIST), Itanagar, and four National Institute of Technical Teachers Training & Research (NITTTRs) are playing an important role in technical education sector.

There are other schemes at the central level which contribute significantly to technical education. These schemes are:

- Programme for Apprenticeship Training (Scholarships and Stipends);
- Community Polytechnics;
- Third Technician Education Project assisted by the World Bank for Improvement of Polytechnic Education,
- Technical Education Quality Improvement Programme (TEQIP), Payment for Professional and Special Service;
- Human Resource Development in Information Technology;
- Support to distance and web-based education;
- National Programme for Earthquake Engineering Education (NPEEE),
- Indian National Digital Library for Science & Technology (INDEST) Consortium and Technology Development Missions.
- There is one Public Sector Undertaking, namely, Educational Consultants India Ltd. (Ed. CIL) under the Technical Education System of the Ministry.

All the central institutions like IITs, NITs, IIMs, IISc, ISM, SPA, IIITM, HIT, NIFFT, NITIE, NITTTRs, NERIST, SLIET, and so forth, provide instructional training to produce high quality trained manpower in the field of technical education. The government has identified Shillong for setting up another IIM in the North Eastern region. The Indian Institute of Information Technology, Design & Manufacturing (IIITDM) has been established at Jabalpur as a centre of excellence for design and manufacturing. An Extension Centre of HIT, Allahabad has been set-up at Amethi.

Community Polytechnics

The Scheme of Community Polytechnics contributes substantially by transferring appropriate and advanced technologies to the rural masses. Establishment of polytechnics for the physically challenged is a milestone. Greater emphasis is being

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given to strengthening and consolidating infrastructure facilities available at the institutes of national importance/excellence like HTs, IIMs, IISc, NITs, among others.

Research Productivity

To enhance research productivity in science and technology education and to improve quality of education, access to electronic journals and databases is being provided to all technical institutions.

To benefit from lower costs, AICTE and INDEST (Indian National Digital Library for Science and Technology) have joined hands to form a combined AICTE-INDEST consortium.

ICT

To leverage new information and communication technologies (ICTs) to enhance learning effectiveness and expand access to high quality education, a National Programme on Technology Enhanced Learning (NP-TEL) has been launched. This would provide content support in the form of digital video-based courses/ enrichment programmes to technology channel on a sustained basis. This would also help create web-based courses/programmes for enhancing learning effectiveness in the entire technical education system.

A National Programme on Earthquake Engineering is also being implemented by MHRD with seven IFTs and IISc, Bangalore as resource institutions to train teachers of engineering colleges to develop suitable curriculum for meeting crises like earthquakes, and so on.

TEQIP

Technical Education Quality Improvement Programme (TEQIP), launched with the assistance of World Bank, aims at upscaling and supporting ongoing efforts of the Government of India in improving the quality of technical education.

Table 11.2 *Allocation and Expenditure during the Tenth Plan*

Year-wise	*Expenditure*
2002–03	Rs 600.36 crore
2003–04	Rs. 625.07 crore
2004–05	Rs. 615.85 crore
2005–06(RE)	Rs. 580.93 crore

A large number of engineering colleges and other technical institutes have been established across the country with the approval of the AICTE, mainly through mobilization of private initiatives.

Progress in the Tenth Plan

During the Tenth Plan, there has been a significant increase in the number of technical education institutions and total intake of students. Of the Tenth Plan outlay of Rs. 13,825 crore for the Department of Secondary and Higher Education, Rs. 4,700

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crore was earmarked for sixteen programmes of technical education. Of this, the major share goes to the World Bank-aided Technical Education Quality Improvement Programme (TEQIP) with an outlay of Rs. 900 crore; AICTE with an outlay of Rs. 600 crore and IITs with an outlay of Rs. 612 crore. The outlay for annual plan 2004-05 for technical education was Rs. 750 crore and expenditure Rs. 615.85 crore.

The seven IITs have been effectively enhancing the country's techno-economic strength and technological self-reliance. These institutes have distinguished themselves by the excellence of their academic activities and research programmes. The total Tenth Plan outlay for these institutions was Rs. 612 crore. It is necessary to increase intake in IITs, and at the same time, to upgrade existing institutions in the country to the level of IITs.

Source***s:*** Adapted from Annual Report 2006-2007, Department of School Education and Literacy, Department of Higher Education, Ministry of Human Resource Development, 2007.

The Eleventh Plan aims to raise the minimum level of education to class X and accordingly will consist of 3500 public funded schools (3000 in KVs and 500 in NVs template) to be launched in the EBBs which have a significant SC, ST, OBC, and Minority population. The second stream of about 2500 schools would be set-up through PPP in other blocks with emphasis on geographical, demographic, gender, and social equity. These schools will be managed and run by involving corporates, philanthropic foundations, endowments, educational trusts, and reputed private providers.

During the Eleventh Plan, the thrust of the Open Schooling system will be on:

(i) Developing NIOS as a potential Resource Organization in Open Schooling at the national and international level, besides offering courses of study,

(ii) Up-scaling programmes of the existing 10 State Open Schools (SOSs),

(iii) Setting up SOSs in the remaining 19 States.

In order to ensure quality in Open Schooling, there will be a full-time coordinator with ancillary staff on contract basis in each Study Centre under the Open Schooling system. During the Eleventh Plan, 1000AVIs will be set up as a part of the Skill Development Mission (SDM).

Twelfth Plan

In the light of past experience and considering the inter-linkages between expansion, equity, and excellence, a new strategic framework is required to pursue the objectives of the Twelfth Plan. This would involve cultural, strategic and organisational changes impacting on all aspects of higher education ranging from access and equity to governance.

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Enrolment Target for the Twelfth Plan

Additional enrolment capacity of 10 million students including 1 million in open and distance learning would be created by the end of the Twelfth Plan. This would enable roughly 3 million more students in each age group to enter higher education and raise the country's gross enrolment ratio (GER) from 17.9 per cent (estimated for 2011-2012) to 25.2 per cent by 2017-2018 and reach the target of 30 per cent GER by 2020-21 which would broadly be in line with world average.

Check Your Progress

4. List some of institutes of national importance which cater to programmes at diploma, undergraduate, postgraduate and research levels.
5. What is the purpose of establishing community polytechnics in India?

11.4 ROLE OF UGC, AIU, AICTE, ICSSR, CSIR AND ICA

Let us study the role of various governments bodies in the yield of education.

1. Role of UGC

Soon after Independence, the University Education Commission (UGC) was set up in 1948 under the Chairmanship of Dr. S Radhakrishnan "to report on Indian university education and suggest improvements and extensions that might be desirable to suit the present and future needs and aspirations of the country". It recommended that the University Grants Committee be reconstituted on the general model of the University Grants Commission of the United Kingdom with a full-time Chairman and other members to be appointed from amongst educationists of repute.

In 1952, the Union Government decided that all cases pertaining to the allocation of grants-in-aid from public funds to the Central Universities and other Universities and Institutions of higher learning might be referred to the University Grants Commission. Consequently, the University Grants Commission was formally inaugurated by late Shri Maulana Abul Kalam Azad, the then Minister of Education, Natural Resources and Scientific Research on 28 December, 1953.

The UGC, however, was formally established only in November 1956 as a statutory body of the Government of India through an Act of Parliament for the coordination, determination and maintenance of standards of university education in India. In order to ensure effective region-wise coverage throughout the country, the UGC has decentralised its operations by setting up six regional centres at Pune, Hyderabad, Kolkata, Bhopal, Guwahati and Bangalore. The head office of the UGC is located at Bahadur Shah Zafar Marg in New Delhi, with two additional bureaus operating from 35, Feroze Shah Road and the South Campus of University of Delhi as well.

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2. Role of AIU

The formation of the Inter-University Board (IUB) of India as an Apex Inter-University Organization on March 23, 1925, in a meeting of Vice Chancellors/ their representatives at Bombay University was the culmination of the need to bring together all the universities in India on a common platform through a coordinating body, to protect the interest of the students as well as the universities. The objective was to promote university activities, especially by way of sharing information and increasing co-operation in the field of education, culture, sports and allied areas. Prior to this, having such an organization in India was recommended by the Sadler Commission in 1919 followed by a resolution, made in the Conference of Vice Chancellors of the Indian Universities convened at Shimla in 1924.

The Inter-University Board acquired a legal status with its registration as a Society under the Societies Registration Act, 1860, on September 29, 1967 and was renamed as Association of Indian Universities (AIU) in 1973. Since its inception, AIU is actively engaged in the growth and development of Higher Education. The membership of AIU includes all types of universities e.g. Conventional Universities, Open Universities, Deemed to be Universities, State Universities, Central Universities, Private Universities and Institutes of National Importance. In addition to Indian Universities, 13 Universities/Institutes from Bangladesh, Bhutan, Republic of Kazakhstan, Malaysia, Mauritius, Nepal, Thailand, United Arab Emirates and United Kingdom are its Associate Members.

Objectives of AIU

Following are the objectives of AIU:

- To serve as an Inter-University Organization
- To act as a bureau of information and to facilitate communication
- Coordination and mutual consultation amongst universities
- To act as a liaison between the universities and the Government (Central as well as the State Governments) and to co-operate with other universities or bodies (national or international) in matters of common interest
- To act as the representative of universities of India
- To promote or to undertake such programmes as would help to improve standards of instruction, examination, research, textbooks, scholarly publications, library organization and such other programmes as may contribute to the growth and propagation of knowledge
- To help universities to maintain their autonomous character
- To facilitate student mobility and exchange of members of the teaching and research staff, sharing of infrastructure, joint-research projects and publications between universities at home country or with the counterparts abroad. AIU is signing MoUs with sister organizing of foreign countries in broad areas and brings the universities together in the areas of mutual interest and facilitates signing of MoUs between them;

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- To appoint or recommend where necessary a common representative of the Association at any Conference, National or International, on higher education
- To assist universities in obtaining recognition for their degrees, diplomas and examinations from other universities, Indian as well as foreign
- To undertake, organize and facilitate conferences, seminars, workshops, lectures and research on various themes pertaining to higher education
- To act as a National Sports Promotion Organization (NSPO) for promoting sports among Member-Universities and maintain the standards in sports
- To enhance participation of university sports at National and International championship competitions and make efforts to improvise upon the sports infrastructure in the universities
- To establish and maintain organization dealing with youth welfare, student information services, cultural programmes, adult education and such other activities as are conducive to the betterment and welfare of students or teachers and others connected with universities
- To act as a service agency to universities in whatever manner it may be required or prescribed
- To undertake, facilitate and provide for the publication of newsletters, research papers, books etc.

3. Role of AICTE

The All India Council for Technical Education (AICTE) was set up in 1945 as an advisory body and later on in 1987 given the statutory status by an Act of Parliament. The AICTE grants approval for starting new technical institutions, for introduction of new courses and for variation in intake capacity in technical institutions. The AICTE has delegated to the concerned state governments powers to process and grant approval of new institutions, starting new courses and variations in the intake capacity for diploma level technical institutions. It also lays down norms and standards for such institutions. It also ensures quality development of technical education through accreditation of technical institutions or programmes. In additional to its regulatory role, the AICTE also has a promotional role which it implements through schemes for promoting technical education for women, handicapped and weaker section of the society promoting innovations, faculty, research and development, giving grants to technical institutions.

The technical institutions under the AICTE include post-graduate, under-graduate and diploma in the whole spectrum of technical education covering engineering/technology, pharmacy, architecture, hotel management and catering technology, management studies computer applications and applied arts and crafts.

The AICTE has its headquarters in New Delhi and seven regional offices located at Kolkata, Chennai, Kanpur, Mumbai, Chandigarh, Bhopal and Bangalore. A new regional office at Hyderabad has been set up and is to be operational soon.

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4. Role of ICSSR

Indian Council of Social Science Research (ICSSR) was established in the year of 1969 by the Government of India to promote research in social sciences in the country. The Council aims to:

- Review the progress of social science research and give advice to its users;
- Sponsor social science research programmes and projects and administer grants to institutions and individuals for research in social sciences;
- Institute and administer scholarships and fellowships for research in social sciences;
- Indicate areas in which social science research is to be promoted and adopt special measures for development of research in neglected or new areas;
- Give financial support to institutions, associations, and journals engaged in social science research;
- Arrange for technical training in research methodology and to provide guidance for research;
- Co-ordinate research activities and encourage programmes for interdisciplinary research;
- Develop and support centres for documentation services and supply of data;
- Organize, sponsor, and finance seminars, workshops and study groups;
- Undertake publication and assist publication of journals and books in social sciences;
- Advise the Government of India on all matters pertaining to social science research as may be referred to it from time to time;
- Take such measures generally as may be necessary from time to time to promote social science research and its utilization.

Promotion of Research in Social Sciences is one of the major activities of ICSSR. Research grants is direct financial support to research projects taken up by social scientists in addition to their normal duties in an honorary capacity. ICSSR provides grants to scholars to conduct research in various fields of social sciences which have a theoretical, conceptual, and methodological or policy orientation on the subject of their choice. The research projects may belong to any of the prescribed social science disciplines or may be interdisciplinary in nature.

The International Collaboration Programme of the ICSSR provides an opportunity to both Indian and foreign scholars in the field of social sciences to interact and research. It has been envisaged to promote academic links among the social scientists in India and abroad. The Council is one of the implementing agencies of the social science component of the Cultural Exchange Agreements (CEPs) and Educational Exchange Programmes (EEPs) signed between the Government of India and the governments of other countries.

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A basic requirement for high quality research in Social Sciences is the training in the science and art of doing research. While the philosophical basis of Social Science research is common to social sciences generally, different subjects have evolved their own theoretical frameworks and procedures/techniques of research. However, scholars engaging themselves in interdisciplinary or multi-disciplinary research need to familiarize themselves with the research strategies of disciplines other than in which they are trained. Moreover, from the stage of research problem to the ultimate reporting and publication of the findings, there are several aspects in which a good researcher has to refine his skills. Therefore, the ICSSR funds and sponsors Research Methodology and Capacity Building Programmes in Universities and Research Institutes.

The ICSSR Training and Capacity Programme (TCB) provides grants to the social science faculties for organizing research methodology and capacity building programme for young researchers and junior faculties in various social science disciplines as under:

- Economics
- Management
- Commerce
- Sociology
- Social Work
- Social Anthropology
- Cultural Studies
- Socio-Sanskrit Studies
- Socio-Philosophical Studies
- Social Linguistics
- Gender Studies
- Health Studies
- Political Science
- International Studies
- Public Administration
- Diaspora Studies
- National Security and Strategic Studies
- Education
- Social Psychology
- Legal Studies
- Social Geography
- Environmental Studies

- Modern Social History
- Media Studies
- Library Science

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National Social Science Documentation Centre (NASSDOC): It was established in 1970 as a Division of the ICSSR with the objective to provide library and information support services to researchers in social sciences to those working in academic institutions, autonomous research organisations, policy making, planning and research units of government departments, business and industry etc. NASSDOC also provides guidance to libraries of ICSSR Regional Centres and ICSSR supported Research Institutes. Meeting the challenges posed by technology driven world, it exemplifies the use of digital environment for creating, applying and utilizing information with its automated library collection, WEBOPAC, online databases/e-resources etc. It has effectively attained itself to the web enabled information and is marching ahead.

5. Role of CSIR

The Council of Scientific & Industrial Research (CSIR), known for its cutting edge R&D knowledgebase in diverse S&T areas, is a contemporary R&D organization. Having a pan-India presence, CSIR has a dynamic network of 38 national laboratories, 39 outreach centres, 3 Innovation Complexes and 5 units. CSIR's R&D expertise and experience is embodied in about 4600 active scientists supported by about 8000 scientific and technical personnel. CSIR covers a wide spectrum of science and technology – from radio and space physics, oceanography, geophysics, chemicals, drugs, genomics, biotechnology and nanotechnology to mining, aeronautics, instrumentation, environmental engineering and information technology. It provides significant technological intervention in many areas with regard to societal efforts which include environment, health, drinking water, food, housing, energy, farm and non-farm sectors. Further, CSIR's role in S&T human resource development is noteworthy.

Pioneer of India's intellectual property movement, CSIR today is strengthening its patent portfolio to carve out global niches for the country in select technology domains. CSIR is granted 90% of US patents granted to any Indian publicly funded R&D organization. On an average CSIR file about 200 Indian patents and 250 foreign patents per year. About 13.86% of CSIR patents are licensed -- a number which is above the global average. Amongst its peers in publicly funded research organizations in the world, CSIR is a leader in terms of filing and securing patents worldwide.

Important functions of CSIR are:

- CSIR has pursued cutting edge science and advanced knowledge frontiers. The scientific staff of CSIR only constitute about 3-4% of India's scientific manpower but they contribute to 10% of India's scientific outputs.

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- In 2012, CSIR published 5007 papers in SCI Journals with an average impact factor per paper as 2.673. In 2013, CSIR published 5086 papers in SCI journals with an average impact factor per paper as 2.868.
- CSIR has operationalized desired mechanisms to boost entrepreneurship, which could lead to enhanced creation and commercialization of radical and disruptive innovations, underpinning the development of new economic sectors.
- CSIR has put in place CSIR@80: Vision & Strategy 2022 – New CSIR for New India. CSIR's mission is "to build a new CSIR for a new India" and CSIR's vision is to "Pursue science which strives for global impact, the technology that enables innovation-driven industry and nurtures trans-disciplinary leadership thereby catalyzing inclusive economic development for the people of India".
- CSIR is ranked at 84th among 4851 institutions worldwide and is the only Indian organization among the top 100 global institutions, according to the Scimago Institutions Ranking World Report 2014. CSIR holds the 17th rank in Asia and leads the country at the first position.

Major Developments/Achievements of CSIR

The Council of Scientific and Industrial Research (CSIR) is a catalyst and driver of sustainable socio-economic change through application of science and technology. CSIR has commercialized several technologies for the society and industry in the areas of food and agriculture, generic drugs, leather, chemicals and petrochemicals, biopharmaceuticals, and materials. Major achievements of CSIR are:

- CSIR is recognized to be among the International leaders knowledge creation. CSIR has been ranked 12th in the world amongst the government institutions in world according to the prestigious Scimago Institutions Rankings 2016 Report.
- CSIR is granted 90% of the US patents granted to any Indian publicly funded R&D organization. The scientific staff of CSIR though constitutes only about 3-4% of India's scientific manpower but it has an overwhelming contribution amounting to 9.6% of India's scientific outputs.
- CSIR is presently supporting around 8500 Research fellows, awarded 2251 Junior Research Fellowships and 65 Shyama Prasad Mukherjee Fellowship. CSIR is supporting more than 1000 research schemes to various universities.
- CSIR is addressing national goals and missions such as Swachh Bharat, Swastha Bharat, Samarth Bharat, Make in India, Innovate for India, Start-up India, and Skill India etc.
- Today, CSIR is attempting a Parivartan from Knowledge creation to Value creation. These includes emphasis on technology development and

commercialization for the society, industry and the strategic sector, creation of S&T based entrepreneurship and participation in the national Skill Development initiative in addition to human resource development. Towards this, several new initiatives and policy changes are being brought in.

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6. Role of ICAR

The Indian Council of Agricultural Research (ICAR) is an autonomous organization under the Department of Agricultural Research and Education, Ministry of Agriculture, Government of India. Formerly known as Imperial Council of Agricultural Research, it was established on 16 July, 1929 as a registered society under the Societies Registration Act, 1860 in pursuance of the report of the Royal Commission on Agriculture. The ICAR has its headquarters at New Delhi.

The ICAR has played a pioneering role in ushering Green Revolution and subsequent developments in agriculture in India through its research and technology development that has **enabled the country to increase the production of foodgrains by 4 times, horticultural crops by 6 times, fish by 9 times (marine 5 times and inland 17 times), milk 6 times and eggs 27 times since 1950-51**, thus making a visible impact on the national food and nutritional security. It has played a major role in promoting excellence in higher education in agriculture. It is engaged in cutting edge areas of science and technology development and its scientists are internationally acknowledged in their fields.

The mandate of the Indian Council of Agricultural Research is:

- To plan, undertake, aid, promote and coordinate education, research and its application in agriculture, agroforestry, animal husbandry, fisheries, home science and allied sciences.
- To act as a clearing house of research and general information relating to agriculture, animal husbandry, home science and allied sciences, and fisheries through its publications and information system; and instituting and promoting transfer of technology programmes.
- To provide, undertake and promote consultancy services in the fields of education, research, training and dissemination of information in agriculture, agroforestry, animal husbandry, fisheries, home science and allied sciences.
- To look into the problems relating to broader areas of rural development concerning agriculture, including postharvest technology by developing co-operative programmes with other organizations such as the Indian Council of Social Science Research, Council of Scientific and Industrial Research, Bhabha Atomic Research Centre and the universities.
- To do other things considered necessary to attain the objectives of the Society.

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Check Your Progress

6. When and why was the UGC formally established?
7. What are the major achievements of CSIR?

11.5 TYPES OF UNIVERSITIES AND EQUIVALENT INSTITUTES OF HIGHER LEARNING

The education maybe of the nature of general, professional or technical or vocational. Types of institute providing higher education are:

1. University/university level
2. Colleges/Institutions: Affiliated/recognized with university
3. Standalone institutes: Not affiliated/recognized with university

1. University level Institutions

Under the University Grants Commission (UGC) Act, 1956, "University means a University established or incorporated by or under a Central Act, a Provincial Act or a State Act, and includes any such institution as may, in consultation with the University concerned, be recognized by the Commission in accordance with the regulations made in this behalf under this Act."

Under Section 22(1) of UGC Act, 1956, the right of conferring or granting degrees shall be exercised only by a University established or incorporated by or under a central Act, a provincial Act, a State Act or an institution deemed to be a University under section 3 or an institution specially empowered by an Act of Parliament to confer or grant degrees.

Under Section 22(2) of UGC Act, 1956 states that "Save as provided in sub-section (1), no person or authority shall confer, or grant, or hold himself or itself out as entitled to confer or grant, any degree."

Section 12 of the UGC Act, 1956 states Power and Functions of the University Grants

Commission (UGC):

It shall be the general duty of the Commission to take, in consultation with the Universities or other bodies concerned, all such steps as it may think fit for the promotion and co-ordination of University education and for the determination and maintenance of standards of teaching, examination and research in Universities, and for the purpose of performing its functions under this Act, the commission may:

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- Collect information on all such matters relating to university education in India and other countries as it thinks fit and make the same available to any university;
- Require a University to furnish it with such information as may be needed relating to the financial position of the University or the studies in the various branches of learning undertaken in that University, together with all the rules and regulations relating to the standards of teaching and examination in that University respecting each of such branches of learning.

Following institutions covered in this category:

i. **Central University**: A university established by a central act

ii. **State University**: A university established by a Provincial or State act

iii. **Open University**: A University which exclusively imparts education through distance learning programmes in any branch or branches of knowledge.

iv. **Private University**: A University established through a State/Central act by a sponsoring body

v. **Deemed University**: An Institute deemed to be university commonly known as deemed university it has been so declared as University Grants Commissions Act under section 3

vi. **Institute of National Importance**: An institute established by act of parliament and declared as institute of national importance such as all IITs and NITs

vii. **Institute under state legislature act**: An institute established or incorporated by State legislature.

viii. **Other institute**: An institution not falling in the above category but established by state/central act and empowered to award degrees

2. Colleges/ Institutions affiliated/ recognized with University

These are institutions which can run degree programmes but are not empowered to provide degree on their own and are necessarily to be attached with some University/University level institution for the purpose of awarding degree. These institutions have been classified as under:

I. **Colleges Affiliated with University/ University level Institutions:** Under Section 12A(1)(b), College means any Institution, whether known as such or by any other name which provides for a course of study for obtaining any qualification from a university and which in accordance with the rules and regulations of such university, is recognized as competent to

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provide for such course of study and present students undergoing such course of study for the examination for the award of such qualification. There are institutions which are admitted to the privileges of the University.

Colleges can be of two types:

(i) University/ Constituent College: A college maintained by the University

(ii) Affiliated College some colleges are given Autonomous Status. UGC has introduced a scheme of Autonomous colleges keeping in view the objectives of the National Education Policy (1986-92). All Colleges under Section 2(f) & 12(b) of the UGC Act are eligible under the Scheme

Criteria for identification of institutions for grant of autonomy are as follows:

a. Academic reputation and previous performance in university examinations and its academic/co-curricular/extension activities in the past.

b. Adequacy of infrastructure, for example, library, accommodation for academic activities, equipment, etc.

c. Quality and merit in the selection of students and teachers, subject to statutory requirements in this regard.

d. Academic/extension achievements of the faculty.

e. Responsiveness of administrative structure.

f. Financial resources provided by the management/state government for the development of the institution.

g. Quality of institutional management

h. Motivation and involvement of faculty in the promotion of innovative reforms.

The Parent University awards degrees to the students, evaluated and recommended by colleges. Autonomous colleges that have completed three year terms can confer the degree under their title with the seal of the university.

II. Institutions Recognized by the University: These are the institutions attached with the University for the purpose of awarding degree in respect of programmes being run in these institutions. *e.g.* Indian Military Academy, Dehradun, Army Cadet College Wing is not affiliated with any University but the degree in respect of programmes run in the institute are awarded by Jawaharlal Nehru University.

III. Off-Campus Centre/ PG Centre: A centre of the University established by it, outside the main campus (within or outside the state) operated and maintained as its constituent unit, having the University's compliment of facilities, faculty and staff.

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IV. **Off-shore Campus:** A campus of the Private University or Deemed to be University established by it outside the country, operated and maintained as its constituent unit, having the University's compliment of facilities, faculty and staff.

V. **Regional Centre:** A centre established and maintained or recognized by the University for the purpose of the coordination of the functioning of the Study Centres in the region, advising, counselling or for rendering any other assistance required by the students used in the context of regular/ distance education.

VI. **Study Centre:** A centre established and maintained or recognized by the university for the purpose of counsel, advising or for rendering any other assistance required by the students.

VII. **Evening College:** The College in which education is imparted in the evening. It may be noted that in a few colleges, using the same infrastructure, education is imparted in two sessions-morning or day and evening. Generally, for all practical purposes, these are treated as two colleges.

3. Standalone Institutions not affiliated/recognised with University

There are several institutions which are outside the purview of the University and College. These institutions generally run Diploma/PG Diploma level programmes for which they require recognition from one or other Statutory Bodies. Such Institutions are referred as Standalone Institutions and mostly fall under following categories:

i. IIMs awarding PG Diploma in Management of two years duration whose entry qualification is Graduate.

ii. Diploma giving Institutions under the control of All India Council for Technical Education (AICTE) e.g. Lal Bahadur Shastri Management Institute awarding PG diplomas in Management of two years duration whose entry qualification is Graduate.

iii. Diploma giving Institutions under the control of Indian Nursing Council (INC).

iv. Government or Government recognized Institutions to conduct Teachers Training courses whose entry qualification is 10+2 e.g. District Institute of Educational and Training (DIET) or similar institutes.

a. Polytechnics.

b. Company Secretary, Charted Accountancy, Actuarial Science etc.

Institution for Women: An Institution which enrols only female students in all its programmes is categorised as Institution for Women. Such institutes may or may not have male teaching and non-teaching staff.

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Check Your Progress

8. What are the main types of institute that provide higher education?
9. List some of criteria for identification of institutions for grant of autonomy.
10. What is off-campus centre/ PG centre?

11.6 ANSWERS TO 'CHECK YOUR PROGRESS' QUESTIONS

1. In the post-Independence era, the University Education Commission (or Dr. Radhakrishnan Commission) (1948), National Education Commission or Kothari Commission (1964–66), National Education Policy (1968), National Education Policy (1986) and its programme of action (1992) are a few notable names linked with higher education in India. As a result, the number of universities has come up from 27 in 1951 to 570 in 2011. Enrolment of students also has crossed 1, 50, 00,000 mark in comparison to 3, 60,000 in 1951. Expenditure upon the establishment and management of higher education has also gone up many times since Independence.
2. As far as the institutional framework is concerned, it consists mainly of seven types of institutions. These are as follows:
   i. Central universities
   ii. State universities
   iii. Open universities
   iv. Institutions established by state legislative act such as private universities
   v. Deemed universities
   vi. Institutes of national importance
   vii. Colleges affiliated with universities.
3. The Yash Pal Committee, which submitted its report in June 2009, has made the following recommendations with regard to the regulatory structure of higher education in India:
   - A National Commission of Higher Education and Research (NCHER) should be established through a Constitutional amendment, to replace UGC, AICTE, NCTE and DEC.
   - Professional bodies such as MCI and BCI should conduct qualifying examinations.
   - NCHER shall create norms for accreditation and certify accrediting agencies, independent of the government.

- A National Education Tribunal should be constituted to adjudicate disputes.

4. The Ministry of Human Resource Development caters to programmes at diploma, undergraduate, postgraduate and research levels. The technical education system at the central level comprises:
   - The All India Council for Technical Education (AICTE), which is the statutory body for proper planning and coordinated development of the technical education system;
   - Seven Indian Institutes of Technology (IITs) which are institutions of national importance;
   - Six Indian Institutes of Management (IIMs),
   - Five Deemed-to-be-Universities, namely, Indian Institute of Science (IISc), Bangalore, Indian School of Mines (ISM), Dhanbad, School of Planning & Architecture (SPA), New Delhi, Indian Institute of Information Technology and Management (IIITM), Gwalior and Indian Institute of Information Technology (HIT), Allahabad,
   - Four Boards of Apprenticeship Training (BOATs), etc. At present there are twenty National Institutions of Technology (NITS).
5. The Scheme of Community Polytechnics contributes substantially by transferring appropriate and advanced technologies to the rural masses. Establishment of polytechnics for the physically challenged is a milestone. Greater emphasis is being given to strengthening and consolidating infrastructure facilities available at the institutes of national importance/ excellence like HTs, IIMs, IISc, NITs, among others.
6. The UGC, however, was formally established only in November 1956 as a statutory body of the Government of India through an Act of Parliament for the coordination, determination and maintenance of standards of university education in India. In order to ensure effective region-wise coverage throughout the country, the UGC has decentralised its operations by setting up six regional centres at Pune, Hyderabad, Kolkata, Bhopal, Guwahati and Bangalore. The head office of the UGC is located at Bahadur Shah Zafar Marg in New Delhi, with two additional bureaus operating from 35, Feroze Shah Road and the South Campus of University of Delhi as well.
7. Major achievements of CSIR are:
   - CSIR is recognized to be among the International leaders knowledge creation. CSIR has been ranked 12th in the world amongst the government institutions in world according to the prestigious Scimago Institutions Rankings 2016 Report.

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- CSIR is granted 90% of the US patents granted to any Indian publicly funded R&D organization. The scientific staff of CSIR though constitutes only about 3-4% of India's scientific manpower but it has an overwhelming contribution amounting to 9.6% of India's scientific outputs.
- CSIR is presently supporting around 8500 Research fellows, awarded 2251 Junior Research Fellowships and 65 Shyama Prasad Mukherjee Fellowship. CSIR is supporting more than 1000 research schemes to various universities.
- CSIR is addressing national goals and missions such as Swachh Bharat, Swastha Bharat, Samarth Bharat, Make in India, Innovate for India, Start-up India, and Skill India etc.
- Today, CSIR is attempting a Parivartan from Knowledge creation to Value creation. These includes emphasis on technology development and commercialization for the society, industry and the strategic sector, creation of S&T based entrepreneurship and participation in the national Skill Development initiative in addition to human resource development.

8. Types of institute providing higher education are:
    i. University/university level
    ii. Colleges/Institutions: Affiliated/recognized with university
    iii. Standalone institutes: Not affiliated/recognized with university
9. Some of the criteria for identification of institutions for grant of autonomy are as follows:
    a. Academic reputation and previous performance in university examinations and its academic/co-curricular/extension activities in the past.
    b. Adequacy of infrastructure, for example, library, accommodation for academic activities, equipment, etc.
    c. Quality and merit in the selection of students and teachers, subject to statutory requirements in this regard.
    d. Academic/extension achievements of the faculty.
    e. Responsiveness of administrative structure.
    f. Financial resources provided by the management/state government for the development of the institution.
    g. Quality of institutional
10. Off-campus centre/ PG centre is a centre of the University established by it, outside the main campus (within or outside the state) operated and maintained as its constituent unit, having the University's compliment of facilities, faculty and staff.

11.7 SUMMARY

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- The system of specialized or higher education continued consistently in late Vedic, Buddhist and Muslim periods. The time period of various levels of education and the titles awarded after achieving specific levels of education changed from time to time.
- The number of universities has come up from 27 in 1951 to 570 in 2011. Enrolment of students also has crossed 1, 50, 00,000 mark in comparison to 3, 60,000 in 1951. Expenditure upon the establishment and management of higher education has also gone up many times since Independence.
- The structure of higher education has two dimensions. The first dimension is that of the types of institutions, their establishment and management, which in short is termed as the 'institutional framework or structure'.
- There is an active and effective system for ensuring and maintaining quality in the institutions of higher education. Various regulatory bodies have constituted specific organizations to ensure and monitor quality concerns in specific types of universities, colleges and institutes through auditing and inspection at given intervals.
- Next to the institutional structures of the institutions of higher education in India, there lies the system of programmes and courses and their time frame.
- All the central institutions like IITs, NITs, IIMs, IISc, ISM, SPA, IIITM, HIT, NIFFT, NITIE, NITTTRs, NERIST, SLIET, and so forth, provide instructional training to produce high quality trained manpower in the field of technical education.
- The Scheme of Community Polytechnics contributes substantially by transferring appropriate and advanced technologies to the rural masses. Establishment of polytechnics for the physically challenged is a milestone.
- To enhance research productivity in science and technology education and to improve quality of education, access to electronic journals and databases is being provided to all technical institutions.
- During the Tenth Plan, there has been a significant increase in the number of technical education institutions and total intake of students.
- The seven IITs have been effectively enhancing the country's techno-economic strength and technological self-reliance. These institutes have distinguished themselves by the excellence of their academic activities and research programmes.
- In order to ensure quality in Open Schooling, there will be a full-time coordinator with ancillary staff on contract basis in each Study Centre under

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the Open Schooling system. During the Eleventh Plan, 1000AVIs will be set up as a part of the Skill Development Mission (SDM).

- The UGC was formally established only in November 1956 as a statutory body of the Government of India through an Act of Parliament for the coordination, determination and maintenance of standards of university education in India.
- The Inter-University Board acquired a legal status with its registration as a Society under the Societies Registration Act, 1860, on September 29, 1967 and was renamed as Association of Indian Universities (AIU) in 1973.
- The AICTE grants approval for starting new technical institutions, for introduction of new courses and for variation in intake capacity in technical institutions.
- Promotion of Research in Social Sciences is one of the major activities of ICSSR. Research grants is direct financial support to research projects taken up by social scientists in addition to their normal duties in an honorary capacity.
- There are institutions which can run degree programmes but are not empowered to provide degree on their own and are necessarily to be attached with some University/University level institution for the purpose of awarding degree.
- It may be noted that in a few colleges, using the same infrastructure, education is imparted in two sessions-morning or day and evening. Generally, for all practical purposes, these are treated as two colleges.
- There are several institutions which are outside the purview of the University and College. These institutions generally run Diploma/PG Diploma level programmes for which they require recognition from one or other Statutory Bodies. Such Institutions are referred as Standalone Institutions
- An Institution which enrols only female students in all its programmes is categorised as Institution for Women. Such institutes may or may not have male teaching and non-teaching staff.

11.8 KEY WORDS

- **The Yash Pal Committee:** The MHRD had set up a Committee on Higher Education known as Yashpal Committee.
- **Make in India:** Covering 25 sectors of the economy, it was launched by the Government of India on 25 September, 2014 to encourage companies to manufacture their products in India and enthuse with dedicated investments into manufacturing.

- **The Scimago Institutions Rankings:** Since 2009, it has published its international ranking of worldwide research institutions.
- **An open university:** This is a university with an open-door academic policy, with minimal or no entry requirements. Open universities may employ specific teaching methods, such as open supported learning or distance education.
- **Institute of National Importance**: This is a status that may be conferred on a premier public higher education institution in India which "serves as a pivotal player in developing highly skilled personnel within the specified region of the country/state".
- **Deemed university, or deemed-to-be-university**: This is an accreditation awarded to higher educational institutions in India, conferring the status of a university.

11.9 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. How did the British overhaul the system of higher education in India?
2. What are the main objectives of higher education as per NPE, 1986?
3. Write a short note on the NKC recommendations on the regulatory structure of higher education.
4. What was the enrolment target for the Twelfth Five-Year Plan?
5. Briefly mention the role and functions of the All India Council for Technical Education (AICTE).
6. Which institutions are referred to as standalone institutions?

Long-Answer Questions

1. Discuss the evolution of higher education in India since the ancient times.
2. Critically analyse why National Policy of Education (NPE), 1986 accorded importance to higher education in India.
3. Analyse the contribution of various IITs in enhancing India's technological self-reliance.
4. Discuss the role of ICAR in the field of agriculture in India.
5. Analyse the power and functions of the University Grants Commission (UGC).

11.10 FURTHER READINGS

NOTES

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BLOCK - IV
VOCATIONAL EDUCATION, FUNCTIONS OF DIFFERENT BODIES AND LEVELS OF EDUCATION

UNIT 12 GENERAL AND VOCATIONAL EDUCATION

Structure

12.0 INTRODUCTION

Vocational education, often referred to as career education or technical education, prepares people to work in various jobs such as a trade or a craft. In India, the idea of vocational education has a long history. The Kothari Commission in 1964 came to the conclusion that many jobs don't require university degrees, and can be competently performed by well-trained higher secondary students. The commission suggested that at the higher secondary stage there needs to be two distinctive streams: one that prepares students for higher education in universities and professional colleges, and another that prepares them for a variety of vocations immediately after school. Scholars and industry experts say that effectively implemented vocational education can address the unemployment problem by training students for a large number of blue-collar jobs.

To make vocational education effective from the employment point of view, various programmes have been launched in India to fulfil the need for imparting

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vocational skills training. Although vocational subjects are offered by a very small number of mainstream schools, school boards, such as the CBSE, offer vocational subjects to students. One important social aspect of vocational education is that it also offers an opportunity to students who are not able to cope with mainstream education. Equipped with vocational skills, they can learn a trade and be economically independent. To make it more effective, institutional support and infrastructure of vocational education need to be improved.

This unit introduces you to issue related to the growing significance of vocational education in secondary and higher secondary levels and how various educational bodies perform their role in education.

12.1 OBJECTIVES

After going through this unit, you will be able to:

- Discuss the aims and objectives of general and vocational education
- Understand the role of NCERT, SCERT, NIEPA and CBSE in education
- Analyse the examination, reforms, inspection and supervision by educational bodies

12.2 AIMS AND OBJECTIVES OF GENERAL AND VOCATIONAL EDUCATION

The term 'vocation' has been derived from a Latin term 'vocare' which means 'to call'. Traditionally, this word was used in religious discourses but with the change of time this term came to be used for an occupation to which a person is specially drawn or for which he or she is suited, trained, or qualified. The dictionary meaning of vocation is designation or appointment to a particular state, business or profession.

There are two more words which seem to be similar to vocation in meaning and purpose. These are occupation and profession, but minute differences among the dictionary meanings of these terms distinguish them thinly. Accordingly, occupation is any job or earning activity accepted by an individual out of one's natural choice of family traditions. Such as farmers, tanners, goldsmith, carpenters, cobblers and artisans are the jobs which are adopted by many as family tradition. On the other hand, vocation is an earning activity for which an individual needs special training and preparation.

Vocational education is a conditional activity; it is conditioned by highly varying circumstances which prompt its need and existence. It emphasizes on preparation for jobs and careers in diversified vocational or professional workers and entrepreneurs. The meaning attached to the word 'vocation' is of great significance in defining the term vocational education. In other words, vocational

education is the education or training of workers. The origin of vocational education may be traced to the early apprenticeship training practices. This concept implies that any kind of education or training in which a worker participates is vocational education. It also suggested that humans have dissimilar abilities and the persons having neither the capacity nor the desire to study the traditional curriculum be prevailed upon to opt for vocational trades more adapted to their taste and abilities.

12.2.1 Need and Importance of Vocational Education

Vocational education prepares an individual for choosing, entering and pursuing successfully the vocation of one's choice. In this sense, vocational education helps an individual in selecting his occupation which is a developmental process taking place over a period of years. It ends in a compromise between interests, capacities, values and opportunities which are available.

In individual terms, provision of vocational education prevents maladjustment and dissatisfaction in the process of occupational choice and pursuance. It is essential that vocational guidance facility is made available to each and every individual so that each individual gets the vocation of one's choice, needs and capability. Such provision prevents maladjustment and dissatisfaction in people's lives.

On the social and national terms, vocational education ensures efficient use of available manpower. Vocational education aims at efficient use of manpower and greater economy in the execution of work in industry, business and government. To achieve this objective vocational education enables people to discover information about their abilities interests, needs, ambitions, limitations and their causes.

Importance of vocationalization

i. **Employment:** Vocationalized education gives a capacity to earn ones living and makes the individual self-dependent. This to a great extent solves the problem of unemployment.

ii. **Economic development:** Due to lack of vocational education, India has not been able to exploit its resources. Vocationalized education creates the trait of productiveness: 'the individual'; who may learn how to exploit the natural resources intelligently. This may ultimately lead to the economic prosperity of the nation.

iii. **Creating a spirit of self-dependence:** Vocationalized education creates a spirit of self-dependence in the individual. Through this education, he begins to earn even during his school or college career. Thus ultimately he becomes a useful member of the society.

iv. **Dignity of labour:** As one has to do some manual work for learning some vocational skills, it develops a sense of dignity of labour in the individual,

not possible in purely general and academic education where the creative side is ignored.

Impediments: Low percentage in vocational education

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As per the district information system for education (report 2014-15), vocational streams are offered at present only in 27 per cent schools, a decline from 303 per cent in 2013-14. The following may be the causes of low percentage in vocational education:

i. The government has not taken up the problem of vocationalization of education with due seriousness.
ii. Lack of teachers for imparting instruction according to the vocationalized aspects incorporated in the general curriculum.
iii. As Education Department of the Government has not been able to receive guidance for determining the exact nature of the vocationalized curriculum, the vocationalized education programmes could not be formulated according to the social and national needs.
iv. Due to lack of necessary facilities in schools and training colleges, laboratories and workshops have not been satisfactorily organized and the required number of trained teachers is not available.
v. The schools and colleges neglected altogether the programme pertaining to physical work and social service.
vi. There has been a lack of cooperation between labour, industries and education departments of the government. No department wholly took the responsibility of vocationalized education on its own.
vii. The public remained altogether indifferent to vocationalized education as its utility has not been fully explained to people.

12.2.2 Stages of Vocational Education

1. Vocational Education at the +2 Stage

Man is a product of his environment and inherent aptitudes. Along with, the nature of his career patterns is also determined by the individual's socio-economic level, mental ability and personality characteristic to which one is exposed to. There are several stages of vocational maturity in individuals till one actually reaches the stage of vocational selection. These stages are differently named by different specialists. R. Super (1957) has listed six stages of vocational maturity though (Buehler 1967) has reduced them to five. Of these, only two to three are relevant as far as vocational education at senior secondary stage is concerned. According to Super, these are crystallization stage (14-18 years) and specification stage (18-21 years). On the other hand, the stages mentioned by Buehler are more realistic in a sense that these are further divided into sub-stages. These are growth stage (from birth to 14 years) and exploratory (from 15 to 24 years). The second stage is sub-divided into (i) fantasy stage and (ii) realistic stage. This description is evident

that +2 or senior secondary stage is most relevant for providing actual or concrete vocational education to students. The prominent functions of vocational education at the higher secondary stage may be listed as follows:

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- To carry forward the vocational information being provided at the earlier stages more intensively and vigorously.
- To make students correlate their studies to the vocations related to them.
- To motivate students undertake a comprehensive study of the careers on the lines they would like to pursue. They may be made to talk to the professionals already employed in those fields.
- To encourage students acquaint themselves with the prospect for higher education and the scholarships, stipends, grants or fellowship available to pursue them.
- To make students aware of the opportunities open to them after the vocational training is over.

2. Vocationalization of Secondary +2 Level Education

In India, the vocational subjects should be given a place in the curriculum of general subjects so that the students become more competent to earn their livelihood after completing the general education. Vocationalization of education means to make a student self-dependent in life. Vocationalization, does not mean only to impart vocational education. It should be organized according to the individual aptitude of the students. A good vocational capacity may be developed in the child, after ascertaining his various aptitudes and interests. According to the recommendation of Secondary Education Commission (1952-53), many multipurpose schools were established that include education in various vocational subjects along with education in general subjects. The Kothari Commission (1964-66) emphasized work-experience in education. This type of education promotes the all-sided development of the individual.

Vocational education has been defined by UNESCO as: 'Comprehensive term embracing those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understandings and knowledge relating to occupations in the various sectors of economic and social life. Such an education would be an integral part of general education and a means of preparing for an occupational field and as aspect of continuing education.'

Vocational education is education given to an individual to prepare him for a successful social living by enabling him to realize his own potential within the framework of economic development to which the individual contributes. Vocationalization means learning of a skill or a range of skills through study of technologies, related sciences or other practical work. Vocationalization of higher secondary education aims at increasing the employment potential of the people through education for self-employment, with emphasis on agricultural and related

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occupations, including cottage and agro industries, and through preparation for specific competencies in different vocations. Thus, we can say that vocationalization means vocation-oriented education i.e., to provide the knowledge of necessary techniques and technologies related to different aspects of economic and social life, and to teach different skills in a practical manner. The sense of vocationalization of education is not limited to only providing vocational education, but is to effect all-round development through vocational education. Education Commission (1964–66) emphasized on vocationalization at +2 level in the 10+2+3 educational structure.

Adiseshiah Committee (1977) recommended that there should be two streams or spectrums after general education of class X: (a) general education spectrum, and (b) vocational education spectrum. In vocational stream, students should be taught some skill(s) related to technology, science, agriculture or other practical work. Vocationalization will put an end to the mad rush for entrance into universities, and the consequent deterioration in the standard of education.

Participating and cooperative agencies

The following agencies will cooperate in implementation of vocational curriculum at +2 level of secondary education:

i. All India Vocational Education Council
ii. Human Resource Development Ministry
iii. NCERT
iv. Regional training boards

12.2.3 Recommendations on Vocationalization of Secondary Education

The recommendations of various committees and commissions on vocationalization of secondary education have been discussed below:

1. **Secondary Education Commission (1952–53):** It recommended the incorporation of vocational courses in the secondary school curriculum as follows:
    i. Multipurpose schools should be established. The current secondary schools should be gradually converted into multipurpose schools. Till then vocational courses should be taught in them according to the varying interests of students. The whole curriculum needs to be sub-divided into seven parts. Every student should study at least one of these parts according to his interest. Each student should study some vocational subject to develop a sense of respect for manual work. The commission emphasized the need of educational and vocational guidance services in each school.
    ii. Each student should be given an opportunity to do some productive work in the school. The courses should be diversified to make alternatives available for the students.

iii. The student should be given theoretical knowledge and practical training in agriculture. Such vocations as gardening, animal husbandry, veterinary science and bee-keeping etc., may be encouraged in schools. These vocations are considered more useful for rural children; rural school should function as a community centre also.

iv. Technical education should be provided in secondary schools. The student may choose some technical subject as his hobby. Some industrial tax may also be levied for acquiring some funds for technical education. The Central Government should annually give financial grant to state governments. A federal board for technical education should be established. Multipurpose schools should be opened at some places.

2. **University Education Commission (1948–49):** It emphasized the need of establishing rural universities for teaching agriculture and allied subjects. It also recommended for making more progressive medical education, teachers' training and education in law.

3. **Kothari Commission (1964–66):** It emphasized the utility of vocational education and gave the following suggestions:

   i. Secondary education must be vocationalized according to the means available.

   ii. Vocational education should be sub-divided into the following stages according to the curriculum:

   - **Junior secondary stage*:*** The students who have passed seventh or eighth class should be admitted in Industrial Training Institutes (ITIs). The admission age should be reduced to 14 years of age. This may also benefit the primary school passed student. Part-time education should be arranged for industrial training to benefit those children who are mostly engaged in domestic work. The students should be given training in agriculture and domestic science.
   - **Higher secondary stage*:*** Polytechnic institutions should be established for those students who have passed secondary school classes. Part-time training or correspondence courses may also be arranged for such students. In health, commerce, administration and small industries varying courses of six months to three years duration should be instituted.

   iii. Separate committee and sub-committees should be organized within the jurisdiction of the education department for giving training in their respective vocation. These committees will look after part-time training and correspondence courses in their respective areas. First of all, the man-power available for the various vocations should be ascertained. Then the training for the same should be organized. The firms which

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may absorb the trained hands should also be consulted about the trained hands that they would require.

iv. The central government should give adequate financial assistance to the various states for vocational and technical education. In USA, it was due to the federal assistance that secondary education could be vocationalized; this practice should be adopted in India.

v. The current facilities for vocational and technical education should be further extended. The training of workmen should be grouped into two parts—semi-skilled and skilled. The number of vocational and technical institutions should be increased. The private and state trade schools should be encouraged by giving financial help.

vi. People have no interest in vocational curriculum as they do not understand its utility. The government should try to create interest in the people for vocational and technical training. Vocational courses should be made more interesting. Vocational Guidance Committees should be organized in schools to give psychological vocational guidance to the students.

12.2.4 National Review Committee on Vocationalization

National Review Committee (1978) has given the following recommendations for making vocationalization of education successful:

i. There should be no rigid streaming of courses in the general education and vocationalized education spectra. The student should be free to offer either the general education or vocationalized courses, or a mix of the two, particularly in relation to the vocational courses as agriculture, and related vocations and other general sciences. There should be in-built elasticity in the choice of the general education or vocationalized subjects.

ii. Learning must be based on work. It must be either through the Socially Useful Productive Work (SUPW) or through vocationalized courses.

iii. Vocational courses should be provided in agricultural and related rural occupational areas and in managerial, commercial, health and para-medical vocations and not industrial and engineering occupations.

iv. Books should be written on a priority basis to suit local conditions and make available to the schools, in order to impart instruction in vocational courses, in agricultural and related subjects.

v. Semester pattern and credit system may also be introduced in higher secondary classes. Suitable steps may be undertaken for the orientation of teachers in this connection.

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vi. To begin with, teachers with postgraduate qualifications need not be insisted. Persons who have had actual experience of on-the-job may be fruitfully utilized to teach vocational courses. Part-time teachers may also be appointed, wherever necessary.

vii. Both pre-service and in-service teacher education should be organized, in collaboration with Colleges of Education, SCERTs, NCERT, Agricultural Universities, and ICAR.

viii. A vocational survey of the area-metropolitan, block, taluk, district or state should be undertaken.

ix. As little or no vocationalized education facilities are readily available for rural students, so new schools should be constructed in rural areas and should be adequately equipped.

x. Shift system should be introduced, wherever feasible.

xi. Apprenticeship facilities should be extended to all the students who complete education in vocational streams if they desire to benefit from such training.

xii. Vocationally qualified persons should be preferred to graduates and be entitled to the pay scales available to the graduates as long as the job performed are the same or of similar level.

xiii. A National Council of Vocational Education should be set up.

xiv. At the State level, State Council for Vocational Education be created and should function under the general guidance of the National Council of Vocational Education.

xv. The vocationalization of education must be supported by the local community and other agencies, such as panchayat, unions, agricultural cooperatives, Small-scale Industries Corporation, Khadi and Village Industry Commission, local branches of nationalized and other banks, etc.

Check Your Progress

1. What do you understand by vocational education?
2. Why vocational education is important?
3. What causes the low percentage in vocational education in India?
4. Which are the main agencies involved in implementation of vocational curriculum at +2 level of secondary education?
5. List some of recommendations of National Review Committee for making vocationalization of education successful.

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12.3 ROLE OF NCERT, SCERT, NIEPA AND CBSE: CO-EDUCATION, EXAMINATION, REFORMS, INSPECTION AND SUPERVISION

Let us study the role of various government bodies in various arenas of education.

12.3.1 Role of NCERT

The report, *Learning without Burden,* notes that public examinations at the end of Class X and XII should be reviewed with a view to replacing the prevailing text-based and quiz-type questioning, which induces an inordinate level of anxiety and stress and promotes rote learning. While urban middle-class children are stressed from the need to perform extremely well, rural children are not sure about whether their preparation is adequate even to succeed. The high failure rates, especially among the rural, economically weaker and socially deprived children, forces one to critically review the whole system of evaluation and examination. For, if the system was fair and working adequately, there is no reason why children should not progress and learn.

Flexibility in Assessment

A lot of psychological data now suggest that different learners learn (and test) differently. Hence there should be more varied modes of assessment beyond the examination hall paper-pencil test. Oral testing and group work evaluation should be encouraged.

Board Examinations at Other Levels

Under no circumstances should board or state-level examinations be conducted at other stages of schooling, such as Class V, VIII or XI. Indeed, boards should consider, as a long-term measure, making the Class X examination optional, thus permitting students continuing in the same school (and who do not need a board certificate) to take an internal school exam instead.

Entrance Examinations

There is a need to delink school-leaving board examinations from competitive entrance examinations. These entrance examinations can be made less stressful if students had to take fewer of them. A single nodal agency could coordinate the conduct of entrance examinations several times a year, at centres located all over the country, and monitor and ensure the timely conduct and release of student achievement indicators. The scores obtained by students at such a national-level examination could be used by all institutions for the purpose of admitting students to universities and professional courses. The actual design and test preparations should not fall within the purview of this nodal agency. You will further study about the functions of NCERT in Unit 13.

12.3.2 Role of SCERT

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The establishment of the State Councils of Educational Research and Training (SCERT) have their own history in our country. The National Council of Educational Research and Training (NCERT) was set up in New Delhi in 1961. In 1967, the Andhra Pradesh government established the State Council of Educational Research and Training on its model. In 1973, then the Union Education and Social Welfare Ministry recommended that the State Institutes of Education (SIEs) and other equivalent institutions in all states be converted into the State Councils of Educational Research and Training. As a result, State Councils of Educational Research and Training came to be set up in different states. The National Educational Policy, 1986 attached importance to giving more rights and expanding the working area of the State Councils of Educational Research and Training. It also spoke of giving them autonomy. As a result, their rights and working scope expanded. At present, their main functions are to decide the form, aims and curriculum of the school education, in accordance with the National Educational Policy and its Plan of Action, and the specific needs of the states. They also develop suitable methods of teaching, techniques for evaluation of educational achievements and conduct research work in all these fields. Besides, they undertake inspection of schools and formulate and undertake training programmes for pre-service and in-service teachers.

Aims and Functions of SCERT

The aims and functions of all State Councils of Educational Research and Training are almost the same. They are:

- To bring about qualitative improvement in school education of all levels
- To conduct academic research, expansion and training in the field of school education in the state
- To assist/advise the state education department about implementation problems, its policies and programmes
- To provide academic assistance by reorientation of educational content and experiments, and to give leadership and advise and suggest in this fields
- To organize innovative programmes for expansion and propagation of new trends and approaches related to education
- To organise creative programmes for all-round development of students, such as science fairs, drama, science seminars, youth parliament, writing contests debate contests etc.
- To publish educational literature

Departments of SCERT

For the realization of the above aims and functions, there are a number of departments in each State Council of Educational Research and Training. Generally,

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the following departments are found in them.

1. **Primary and Adult Education Department**: Its scope covers primary and adult education. It plans primary and adult education, creates literature for adult education and reviews it.
2. **Language Department**: Its scope is school education. It works for skill development in communication of students', and conducts review and editing of papers and periodicals. It resolves any problems pertaining to the establishment of language laboratories. It also organizes birthdays of great people and thinkers for improvement in language.
3. **Science Department**: Its scope is school education. It organizes training programmes for science teachers and laboratory assistants and science seminars and science fairs for students, and guidance programme for district science specialists.
4. **Textbook Department**: Its scope is school education as well as primary teacher education. It undertakes the duties of constructing curriculum and textbooks for primary classes, to review textbooks from classes 1 to 12 and preparing workbooks for them.
5. **Work Experience Department**: It works in the whole field of school education. It determines the area of work experience, discover methods for its arrangement, and trains in-service teachers in work experience.
6. **Educational Evaluation and Research Department**: Its scope is the entire school education. It trains the teachers in setting test papers and preparing blueprints, for them, holds workshops for continuous evaluation, conducts educational survey, constructs teacher handbooks, and establishes correlation with school education boards.
7. **Educational Technology Department:** This department organizes computer training programmes for teachers, and evaluates and records lessons of secondary and higher secondary levels under EDUSAT. It undertakes the duties of maintaining computer laboratories and studios, developing low cost teaching aids, and conducting research in educational technology.
8. **In-service Teacher Education and Extension Department**: Its scope is the whole of school education. It is responsible for preparing resource persons for training, organizing training programmes for DIETs and other equivalent institutions, holding conferences and seminars, and conducting action research and research.
9. **Population Education Department**: This department organizes awareness programmes in population education for school heads, administrative people and NGOs, prepares teaching-learning material for population education, organizes lectures, and crates awareness for women empowerment, HIV

and AIDS etc., cultivates skill in youth, and review textbooks in the context in the context of population of population education.

Contribution of SCERTs

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The State Councils of Educational Research and Training are playing a vital role in all states in the fields of school education, school teacher training and adult education. We shall discuss in brief the contribution of SCERT in the fields of school education and school teacher training.

1. In the field of school education

   The SCERT's contribution in the field of school education is as follows:

   - SCERTs construct model curriculum for school education.
   - Prepare model textbooks for school classes.
   - Encourage innovations for children of school level.
   - Construct teaching aids for schools.
   - Construct science kits for schools.
   - Prepare software related to school education and are arranging for their broadcast.
   - Develop technique for evaluation of students' achievements at school level.
   - Conduct research work in the field of school education, and are effecting continuous modification in the field of school education.

2. In the field of teacher's training

   The SCERT's contribution in the field of teacher's training is as follows:

   - Construct model training curriculum for school teachers.
   - Organize in-service and pre-service teacher training at school level.
   - Organize refresher courses for teachers.
   - Keep control over all DIETs in their respective states, and render technical assistance in execution of their responsibility.
   - Guide the DIETs.

12.3.3 Role of NIEPA

The National Institute of Educational Planning and Administration (NIEPA), a Deemed-to-be-university, established by the Ministry of Human Resource Development, Government of India, is a premier organization dealing with capacity building and research in planning and management of education not only in India but also in South Asia.

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In recognition of the pioneering work done by the organization in the field of educational planning and administration, the Government of India have empowered it to award its own degrees by way of conferring it the status of Deemed to be University in August, 2006. Like any Central University, NIEPA is fully maintained by the Government of India.

The National Institute has its origin dating back to 1962 when the UNESCO established the Asian Regional Centre for Educational Planners and Administrators which later became the Asian Institute of Educational Planning and Administration in 1965. After 4 years of its existence, it was taken over by the Government of India and renamed as the National Staff College for Educational Planners and Administrators. Subsequently, with the increased roles and functions of the National Staff College, particularly in capacity building, research and professional support services to governments, it was again renamed as the National Institute of Educational Planning and Administration (NIEPA) in 1979.

Objectives and functions of the organization

- To organize pre-service and in-service training programmes in the area of educational planning and administration and allied disciplines;
- To undertake, aid, promote and coordinate research in various aspects of educational planning and administration and allied disciplines, including comparative studies in planning techniques and administrative procedures in the different States of India and in other countries of the world.
- To provide academic and professional guidance to agencies, institutions and personnel engaged in educational planning and administration;
- To offer M. Phil, Ph. D. and Post-Doctoral Programmes and award degrees in educational planning, educational administration, educational finance, comparative education, school education, higher education, professional education, policy research, gender in education, discrimination in education, education and globalization, educational management and information system, etc.
- To act as a clearing house of ideas and information on research, training and extension in educational planning and administration services and other programmes;
- To prepare, print and publish papers, periodicals and books in furtherance of these objectives and especially to bring out a Journal on Educational Planning and Administration;
- To organize training, conferences, workshops, meetings, seminars and briefing sessions for educational personnel of the Central and State Governments and Union Territories;

- To offer, on request, consultancy service to Governments, including State Governments, educational institutions and institutions/organizations in India & abroad.
- To organize orientation and training programmes and refresher courses for teacher-educators and for University and College Administrators engaged in educational planning and administration;
- To organize orientation programmes, seminars and discussion groups for persons including legislators in the field of educational planning and administration at the level of policy making in Central and State Governments;
- To award consultancy work/services to other organizations/individuals;
- To collaborate with other agencies, institutions and organizations, including the University Grants Commission, the Universities, Institutes of Management and Administration and other allied institutions in India and abroad, in such way as may be considered necessary for the promotion of these objectives;
- To provide, on request, facilities for training and research in educational planning and administration to other countries, especially of the Asian Region, and collaborate with them in programmes;
- To offer fellowships, scholarships and academic awards in furtherance of the objects of the National University;
- To confer honorary fellowships on eminent educationists for their contribution in the field of educational planning and administration
- To undertake extra mural studies, extension programme and field outreach activities to contribute to the development of society;
- To disseminate and advance knowledge by providing instructional, research and extension facilities in such branches of learning as it may deem fit and to provide to students and teachers the necessary facilities and atmosphere for the promotion of innovations in education leading to restructuring of courses, new methods of teaching and learning, and integral development of personality, studies in various disciplines, inter-disciplinary studies, and national integration & International understanding;
- To conduct the above-mentioned programmes and courses in its campus and off- shore campuses
- To do or perform all such other acts, functions and things as may be deemed necessary, desirable or incidental by the National Institute in furtherance of the above objectives of the National Institute.

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12.3.4 Role of CBSE

The Central Board of Secondary Education (CBSE) has revamped its norms for granting affiliation to schools, leaving the onus of the infrastructural audit on states and limiting its own role to academic quality monitoring.

Union HRD Minister Prakash Javadekar announced that the affiliation by-laws of the CBSE have been completely revamped to ensure speed, transparency, hassle-free procedures and ease of doing business with the board. "The new by-laws denote a major shift from the highly complex procedures followed earlier to a simplified system based on preventing duplication of processes. At present, for issuing recognition under the RTE Act and the NOC, the state education administration verifies various certificates to be obtained from local bodies, revenue and cooperative departments. CBSE re-verifies them after the applications are received and hence the process becomes long drawn," he told reporters in New Delhi. "The board will now not revisit any of the aspects vetted by the state during its inspection and the delay due to scrutiny and non-compliance of deficiencies in these documents shall be drastically curtailed. Inspection of schools by the CBSE will now be outcome-based and more academic and quality-oriented," Javadekar added.

The CBSE has 20,783 schools affiliated to it across the country and abroad, with over 1.9 crore students and more than 10 lakh teachers. The affiliation by-laws were formulated in the year 1998 and were last modified in 2012.

"The inspection by the CBSE will focus on academic excellence and progress of students over time, innovations and quality of pedagogy, capacity of teachers and teacher training, inclusive practices in school, quality of co-scholastic activities, whether the curricular load is as per norms and whether there is adequate emphasis on sports," he said. According to the new norms, the pendency of the applications will also be dealt with seriously and the applications will henceforth be disposed of in the same year, and the entire process will be online.

The new provisions mandate schools to make full disclosure of fee structure and prohibit them from levying any hidden charges, Javadekar said.

Examination pattern

Citing MHRD sources, agencies reported that the initiative of this pattern change is being taken to discourage students from rote learning.

- The new pattern would test students on their analytical skills and reasoning abilities instead of blind copy pasting of textbook text
- The board has also claimed that this step will produce a better result and the academic quality of institutions will be renewed

The new plan

Some major changes are expected to be introduced in the new CBSE exam pattern 2020 are:

- Question papers to be designed to check the problem-solving and analytical thinking of students
- Paper pattern to be revamped to include more short answer-type questions like those ranging from 1 to 5 marks
- Vocational course exams to be held in February, and the final board exams to conclude by March "**in around 15 days**," as per a senior official
- Following the early wrapping up of boards, the results are likely to be declared earlier than the schedule followed in the current structure.

"This will give evaluators more time to check papers. Results**, too, will likely be declared earlier",** the report said. Under the new plan, there is a vision for putting more emphasis on improved quality of academics in institutions such as teachers, learning outcomes and pedagogy.

Respective state governments (state's directorates of education/school education departments) would be responsible for evaluating their schools' working criteria, infrastructure, and facilities, and their report will be the guide for CBSE to arrive at a decision. CBSE's renewed paper pattern also aims to simplify and shorten the rules of affiliation and renewal for schools.

Inspection and Supervision by CBSE

The CBSE has always stressed that its students must acquire the skills of critical thinking, problem solving, analysing information, collaboration, effective communication, developing curiosity and imagination as part of the learning process. The Board continues to make small changes in the assessment and evaluation practices almost every year to eventually reach the goal of achieving the aforementioned skills for all its students.

Report card of the National Assessment Survey (2017-18) has indicated that the performance of CBSE class X students in Mathematics, Science, Social Science, English and Modern Indian Language is 52%, 51%, 53%, 58% and 62% respectively. Although this competency-based survey places the CBSE students above the national average, it indicates that there is ample scope for improvement in their performance.

Further, the decision by MHRD to participate in PISA (Programme for International Student Assessment) in 2021, has given even more impetus to the requirement of aligning the Board's assessment system to future requirements. It may also be mentioned here, that since the Board has made it mandatory for all its affiliated schools to adopt the Learning Outcomes vide circular dated 18.01.2019,

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it is a necessity now that 'assessment of learning' must be augmented with 'assessment as learning' and 'assessment for learning'.

In view of above, countrywide consultations were held with CBSE stakeholders including teachers, students, heads of Institutions and experts in the field to suggest ways to strengthen the Assessment and Evaluation Practices of the Board. It was agreed upon that the School Based /Internal Assessment needs to be strengthened by incorporating more diverse strategies. Further, there is need of exposing the students to different types and formats of questions in the year end/ Board examination, so that a large range of learning outcomes can be assessed. Based on this, few changes are proposed in the Assessment and Examination practices for the year 2019-20 onwards. As the next academic session (2019-20) is going to start from April 2019 onwards, hence a summary view of the proposed changes in Internal Assessment and Year End/ Board Examinations are informed in advance.

Check Your Progress

6. Why should there be flexibility in assessment?
7. What is the contribution of SCERTs in school education?

12.4 ANSWERS TO 'CHECK YOUR PROGRESS' QUESTIONS

1. Vocational education is a conditional activity; it is conditioned by highly varying circumstances which prompt its need and existence. It emphasizes on preparation for jobs and careers in diversified vocational or professional workers and entrepreneurs. Vocational education prepares an individual for choosing, entering and pursuing successfully the vocation of one's choice. In this sense, vocational education helps an individual in selecting his occupation which is a developmental process taking place over a period of years. It ends in a compromise between interests, capacities, values and opportunities which are available. In individual terms, provision of vocational education prevents maladjustment and dissatisfaction in the process of occupational choice and pursuance. On the social and national terms, vocational education ensures efficient use of available manpower. Vocational education aims at efficient use of manpower and greater economy in the execution of work in industry, business and government. To achieve this objective vocational education enables people to discover information about their abilities interests, needs, ambitions, limitations and their causes.

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2. Vocational education as it offers the following benefits to individuals. These are:
    i. **Employment:** Vocationalized education gives a capacity to earn ones living and makes the individual self-dependent. This to a great extent solves the problem of unemployment.
    ii. **Economic development:** Due to lack of vocational education, India has not been able to exploit its resources. Vocationalized education creates the trait of productiveness: 'the individual'; who may learn how to exploit the natural resources intelligently. This may ultimately lead to the economic prosperity of the nation.
    iii. **Creating a spirit of self-dependence:** Vocationalized education creates a spirit of self-dependence in the individual. Through this education, he begins to earn even during his school or college career. Thus ultimately he becomes a useful member of the society.
    iv. **Dignity of labour:** As one has to do some manual work for learning some vocational skills, it develops a sense of dignity of labour in the individual, not possible in purely general and academic education where the creative side is ignored.
3. The following may be the causes of low percentage in vocational education:
    i. The government has not taken up the problem of vocationalization of education with due seriousness.
    ii. Lack of teachers for imparting instruction according to the vocationalized aspects incorporated in the general curriculum.
    iii. As Education Department of the Government has not been able to receive guidance for determining the exact nature of the vocationalized curriculum, the vocationalized education programmes could not be formulated according to the social and national needs.
    iv. Due to lack of necessary facilities in schools and training colleges, laboratories and workshops have not been satisfactorily organized and the required number of trained teachers is not available.
    v. The schools and colleges neglected altogether the programme pertaining to physical work and social service.
    vi. There has been a lack of cooperation between labour, industries and education departments of the government. No department wholly took the responsibility of vocationalized education on its own.
4. The following agencies are involved in implementation of vocational curriculum at +2 level of secondary education:
    i. All India Vocational Education Council
    ii. Human Resource Development Ministry

iii. NCERT
iv. Regional training boards

5. Some of the recommendations of National Review Committee are:

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   i. There should be no rigid streaming of courses in the general education and vocationalized education spectra. The student should be free to offer either the general education or vocationalized courses, or a mix of the two, particularly in relation to the vocational courses as agriculture, and related vocations and other general sciences. There should be in-built elasticity in the choice of the general education or vocationalized subjects.
   ii. Learning must be based on work. It must be either through the Socially Useful Productive Work (SUPW) or through vocationalized courses.
   iii. Vocational courses should be provided in agricultural and related rural occupational areas and in managerial, commercial, health and para-medical vocations and not industrial and engineering occupations.
   iv. Books should be written on a priority basis to suit local conditions and make available to the schools, in order to impart instruction in vocational courses, in agricultural and related subjects.
   v. Semester pattern and credit system may also be introduced in higher secondary classes. Suitable steps may be undertaken for the orientation of teachers in this connection.
   vi. To begin with, teachers with postgraduate qualifications need not be insisted. Persons who have had actual experience of on-the-job may be fruitfully utilized to teach vocational courses. Part-time teachers may also be appointed, wherever necessary.
   vii. Both pre-service and in-service teacher education should be organized, in collaboration with Colleges of Education, SCERTs, NCERT, Agricultural Universities, and ICAR.

6. A lot of psychological data now suggest that different learners learn (and test) differently. Hence there should be more varied modes of assessment beyond the examination hall paper-pencil test. Oral testing and group work evaluation should be encouraged.
7. The SCERT's contribution in the field of teacher's training is as follows:
   - Construct model training curriculum for school teachers.
   - Organize in-service and pre-service teacher training at school level.
   - Organize refresher courses for teachers.
   - Keep control over all DIETs in their respective states, and render technical assistance in execution of their responsibility.
   - Guide the DIETs.

12.5 SUMMARY

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- Vocational education is a conditional activity; it is conditioned by highly varying circumstances which prompt its need and existence. It emphasizes on preparation for jobs and careers in diversified vocational or professional workers and entrepreneurs.
- Vocational education prepares an individual for choosing, entering and pursuing successfully the vocation of one's choice. In this sense, vocational education helps an individual in selecting his occupation which is a developmental process taking place over a period of years.
- As per the district information system for education (report 2014-15), vocational streams are offered at present only in 27 per cent schools, a decline from 303 per cent in 2013-14.
- In India, the vocational subjects should be given a place in the curriculum of general subjects so that the students become more competent to earn their livelihood after completing the general education.
- Vocational education is education given to an individual to prepare him for a successful social living by enabling him to realize his own potential within the framework of economic development to which the individual contributes
- Adiseshiah Committee recommended that there should be two streams or spectrums after general education of class X: (a) general education spectrum, and (b) vocational education spectrum.
- In vocational stream, students should be taught some skill(s) related to technology, science, agriculture or other practical work. Vocationalization will put an end to the mad rush for entrance into universities, and the consequent deterioration in the standard of education.
- Technical education should be provided in secondary schools. The student may choose some technical subject as his hobby. Some industrial tax may also be levied for acquiring some funds for technical education.
- There should be no rigid streaming of courses in the general education and vocationalized education spectra. The student should be free to offer either the general education or vocationalized courses, or a mix of the two, particularly in relation to the vocational courses as agriculture, and related vocations and other general sciences.
- While India has made quantitative improvement in technical and vocational education, we have not yet paid adequate attention to its qualitative side.
- After getting the training, if the trainee remains unemployed for some time, he forgets all that he has learned in the technical field concerned.

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- Through its Five-Year Plans, India has developed opportunities for technical and vocational education. But the development of these opportunities has created the problems of unemployment, especially for the technical hands.
- The existing educational system aims exclusively at passing the examination, and thus it fails to bring about the mental and moral development of the individual. It fails to aid and guide teachers as well as famous educational institutions.
- The high failure rates, especially among the rural, economically weaker and socially deprived children, forces one to critically review the whole system of evaluation and examination.
- A lot of psychological data now suggest that different learners learn (and test) differently. Hence there should be more varied modes of assessment beyond the examination hall paper-pencil test. Oral testing and group work evaluation should be encouraged.
- There is a need to delink school-leaving board examinations from competitive entrance examinations. These entrance examinations can be made less stressful if students had to take fewer of them.
- The National Educational Policy, 1986 attached importance to giving more rights and expanding the working area of the State Councils of Educational Research and Training. It also spoke of giving them autonomy.
- For the realization of its stated aims and functions, there are a number of departments in each State Council of Educational Research and Training.
- The CBSE has always stressed that its students must acquire the skills of critical thinking, problem solving, analysing information, collaboration, effective communication, developing curiosity and imagination as part of the learning process.
- The decision by MHRD to participate in PISA (Programme for International Student Assessment) in 2021, has given even more impetus to the requirement of aligning the Board's assessment system to future requirements.
- Countrywide consultations were held with CBSE stakeholders including teachers, students, heads of Institutions and experts in the field to suggest ways to strengthen the Assessment and Evaluation Practices of the Board.

12.6 KEY WORDS

- **University Education Commission:** The Government of India appointed a university Education Commission under the chairmanship of Dr. Radhakrishnan in November 1948. The Commission made a number of significant recommendations on various aspects of higher education and submitted its report in August 1949.

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- **Secondary Education Commission:** Secondary Education commission was appointed by the government of India to bring changes in the present education system and make it better for the Nation.
- **Post-doctoral programme:** The programmes provide opportunities for students who have a Ph.D. degree to work as Post-doctoral fellows.
- **PISA:** The Programme for International Student Assessment (PISA) is a worldwide study by the Organisation for Economic Co-operation and Development in member and non-member nations intended to evaluate educational systems by measuring 15-year-old school pupils' scholastic performance on mathematics, science, and reading.
- **Right to Education Act (RTE):** This is an Act of the Parliament of India enacted on 4 August 2009, which describes the modalities of the importance of free and compulsory education for children between the ages of 6 to 14 years in India under Article 21A of the Indian Constitution.

12.7 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. How can vocational education help students learn and gain experience?
2. How useful is vocational education from job perspective?
3. Write a short note on the recommendations of Secondary Education Commission on vocational courses in the secondary school curriculum.
4. Why is there a need to delink school-leaving board examinations from competitive entrance examinations?
5. What are the objectives and functions of NIEPA?
6. What are some major changes which are expected to be introduced in the new CBSE exam pattern 2020?

Long-Answer Questions

1. Discuss the relevance of vocational education provision to learning, work and the economy.
2. Elaborate the stages where vocational education can be introduced.
3. Critically analyse the contribution of SCERTs in teacher training.
4. Discuss the various reforms introduced by CBSE.

12.8 FURTHER READINGS

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UNIT 13 FUNCTIONING BODIES

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Structure

13.0 INTRODUCTION

India has developed a comprehensive and continuous plan to strengthen education at primary, secondary and higher secondary levels. At primary level, as suggested by National Policy of Education (NPE, 1986), one of main thrusts of District Institute of Education & Training (DIET) is to improve and enrich the academic equipment of elementary school teachers, non-formal and adult education functionaries and other personnel down the lowest, but important level of our educational system. DIET was established to bring about qualitative improvement of elementary education in general and teacher education in particular. The National Council of Educational Research and Training (NCERT), an autonomous organisation of the Central government, was established to conduct and promote educational research, improve educational techniques, develop curriculum and methods of teaching. In pursuance of the recommendations of NPE, 1986, the State Council of Educational Research & Training (SCERT) was established as an autonomous organization for providing academic resource support in improving the quality of school education in the State. District Primary Education Programme (DPEP) aims at achieving the objective of Universalisation of Primary Education. Operation Blackboard, a centrally-sponsored programme, was launched to provide the bare minimum crucial facilities to all primary schools in the country.

As accessibility and availability are the major reasons of school dropouts in India, various programmes and policies are designed to help school dropouts improve their educational attainment.

This unit introduces you to the role and functions of DIET, NCERT and SCERT in strengthening education at various levels and examines programmes like District Primary Education Programme (DPEP) and Operation Blackboard.

13.1 OBJECTIVES

After going through this unit, you will be able to:

- Recognize the role and functions of DIET, NCERT and SCERT
- Understand various programmes for dropouts
- Analyse the role of operation blackboard and district primary education
- Discuss the functioning of National Policy of Education

13.2 DISTRICT INSTITUTE OF EDUCATION AND TRAINING (DIET)

District Institute of Education and Training (DIET) is the ground level institute to prepare teachers for elementary classes. It organizes training and orientation programmes relating to elementary education. It also trains the SMC members, parents, village workers relating to various projects undertaken by State and the Central Government.

According to Education Commission (1964–66), 'Of all the factors that influence the quality of education… the quality, competence and character of teachers are undoubtedly the most significant'. All these characteristics of a teacher depend majorly on the quality of training and the support that are provided to them. Due to the increase in elementary and adult education, the state level agencies found it difficult to manage. The NPE and POA envisaged addition of a third-district level-tier to the support system in the shape of District Institutes of Education and Training (DIETs).

DIETs were expected to have a better control of the institutes as they would be closer to them and more aware of their problems and needs. In accordance to the provisions of NPE a centrally sponsored Scheme of Restructuring and Reorganization of Teacher Education was approved in October 1987. One of the components of the Scheme was to set up DIETs. Till October 1989, central assistance had been sanctioned under the Scheme for setting up a total of 216 DIETs in the country. At present a total of 500 (approximate) DIETs exist in India.

Organizational structure

District Institute of Education and Training (DIET) works under State Council of Educational Research and Training (SCERT) of the state. Principal works as the head of the DIET with teachers in different subjects and pedagogy teachers. Trainee teachers get complete education in content and pedagogy to transact school curriculum up to elementary level.

Based on the above functions, a DIET would need to have staff strength in the following areas:

(i) Foundations of Education and Pedagogy

(ii) The subjects taught at the Elementary stages; namely:

- Languages taught at the elementary level in the district (these may be two, three or even four, depending on the number of languages which are introduced in a State at the elementary stage and factors like bilingual character of a district)
  - Mathematics
  - Environmental Studies –Social Science
  - Environmental Studies–Science

Objectives of DIET

District Institute of Education and Training (DIET) has the following objectives:

- To conduct classes of regular teacher education programmes such as Diploma in Elementary Education or Diploma in Education.
- To conduct programmes for Elementary School and Pre-School Teachers (both pre-service and in-service).
- To organize specially designed courses for Headmasters, Officers of the Education Department, members of the School Management Committees (SMC), Community Leaders, Elected Heads of the *Panchayati* institutions, Block and Cluster Resource coordinators, etc.
- To actively participate in Preparation of District plans for UEE.
- To work for implementing Right to Education Act, 2009.
- Development of district specific curricula and teaching learning materials.
- To provide support to Block Resource Centres (BRC) and Cluster Resource Centres (CRC) for Elementary Schools and Programmers of UEE.
- To actively engage in Action Research and experimentation for an improved understanding of Elementary Education and to solve the difficulties of the teachers and the students in teaching–learning and other related areas.
- To tackle specific problems of the District and the State for achieving the objectives of UEE and to provide quality elementary education.

Role and Functions

The DIETs are envisioned as 'Academic Lead Institutions' to provide guidance to all academic functionaries in the district. The main functions and roles undertakes by DIETs are as follows:

- Quality teacher training, leading to high learning levels among students.
- Improving pedagogy and making classroom learning interesting.
- Developing curriculum and academic material such as child-friendly textbooks.

- Planning and management of primary, adult education and non-formal education of the district.
- Conducting research, developing low and no-cost teaching aids, supporting innovative materials and methods.
- Evaluating students, teachers, programmes and institutions.
- Using technology in education and making the elementary teachers' technology friendly.
- It organizes training and orientation programmes for the:
  - i. Elementary school teachers (both pre-service and in-service education)
  - ii. Headmasters, Heads of Schools and officers of Education Department up to Block and Cluster level
  - iii. Instructors and supervisors of non-formal and Adult Education (induction level and continuing education)
  - iv. Members of School Management Committee (SMC), community leaders, youth and other volunteers who wish to work as educational activities; and
  - v. Resource persons who wish to conduct suitable programmes for the target groups in BRC and CRC centres other than the DIET.
- Provides academic and resource support to the elementary and adult education systems in the district like development of locally relevant materials and teaching aids, evaluation tools, etc., and serving as an evaluation centre for elementary school and programmes of NFE/AE.
- Conducts Action research and experiments to deal with specific problems of the district.

Check Your Progress

1. What is the organizational structure of DIET?
2. List some of the roles and functions of DIET.

13.3 THE NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING (NCERT)

Let us study the functions of NCERT.

13.3.1 Functions of NCERT

I. **Research:** The National Council of Educational Research and Training (NCERT) performs the important functions of conducting and supporting educational research and offering training in educational research methodology. Different Departments of the National Institute of Education (NIE), Regional Institutes of Education (RIEs), Central Institute of Educational Technology (CIET) and Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) undertake research

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programmes on different aspects of school education and teacher education. NCERT also supports research programmes of other institutions/ organizations by providing financial assistance and academic guidance. Assistance is given to scholars for publication of their Ph.D. theses. Research fellowships are offered to encourage studies in school education to create a pool of competent research workers.

II. **Development:** Developmental activities in school education constitute an important function of the NCERT. The major developmental activities include development and renewal of curricula and instructional materials for various levels of school education and making them relevant to changing needs of children and society. The innovative developmental activities include development of curricula and instructional materials in school education in the area of pre-school education, formal and non-formal education, vocationalisation of education and teacher education. Developmental activities are also undertaken in the domains of educational technology, population education, and education of the disabled and other special groups.

III. **Training:** Pre-service and in-service training of teachers at various levels; pre-primary, elementary, secondary and higher secondary, vocational education, educational technology, guidance and counselling, and special education are the areas of training in which NCERT works. The pre-service teacher education programmes at the Regional Institutes of Education (RIEs) incorporate many innovative features. The RIEs also undertake the training of key personnel of the states and of state level institutions and training of teacher educators and in-service teachers.

IV. **Extension:** Various Departments of the NIE, RIEs, CIET and PSSCIVE are engaged in various ways. Constituents of NCERT work in close collaboration with various agencies and institutions in the states. Several programmes are organized in rural and backward areas in order to reach out to the functionaries in these areas where special problems exist and where special efforts are needed. Special programmes are organized for the education of the disadvantaged sections of the society. The extension programmes cover all States and Union Territories of the country.

Check Your Progress

3. What important functions does the NCERT perform?
4. Which are the areas of training in which NCERT works?

13.4 STATE COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING (SCERT)

All states have their State Council of Educational Research and Training (SCERT). SCERT works for educational development of School and Teacher education of the States. It is responsible for initiating and continuation of state-run projects and implementing the project lunched by the centre. It coordinates with NCTE and

NCERT in the matter relating to educational development of School and Teachers. Let us discuss the establishment, organizational structure, objectives, and major function of SCERT.

The National Policy on Education (1986) had recommended the creation of State Council of Educational Research and Training (SCERT) in each State to decentralize the functions of quality education, research and training. It also laid emphasis on the improvement of educational quality and suggested to adopt some programmes such as:

1. Improvement of curriculum
2. Teacher enrichment programme
3. Continuous and comprehensive evaluation
4. Quality textbooks
5. Improvisation and utilization of teaching aids

Keeping the future in mind, alternative strategies like informal education and vocational education after Class 12 has also been highlighted. SCERT has been given the responsibility to conduct these activities at the state level on behalf of NCERT for the improvement of education. Soon state governments started to establish SCERT in their States. State NCT of Delhi established its SCERT in 1988, Odisha in 1979, Tripura in 1996, Uttar Pradesh in 1981, Maharashtra in 1984, Andhra Pradesh in 1967 and accordingly in other States.

13.4.1 Objectives of SCERT

The main objectives of SCERT in the States are as follows:

- To work in the areas of elementary education and teacher education programme (elementary and secondary) in the state.
- To organize pre-service training for prospective teachers, and capacity building programmes for in-service teachers, conferences, meetings, seminars and briefing sessions for State Education Officers and field functionaries.
- To organize induction level training programmes for the new entrants/teaching workforce of the teachers training institutions.
- To restructure syllabus and curriculum used at the elementary education and teacher education sector so as to make it need-based and relevant based and functional.
- To undertake, aid, promote and coordinate research and innovation activities among faculty members of teacher training institutions.
- To generate new ideas, innovations, improved practices in education, quality monitoring and supervision, etc. by conducting studies and researches both short term and longitudinal and their dissemination among faculty members of teacher training institutions.
- To produce high quality teaching learning materials and enriched literature for teachers, trainers, supervisors and key educational functionaries.

- To provide academic and professional support and guidance to agencies and institutions working in the field of education, population and development education, child rights and environment protection, and eco-friendly lifestyle, community education etc.
- To collaborate with other agencies, institutions, organizations for the cause of quality in school education and teacher education programme.
- To implement educational projects relating to school and teacher education lunched by NCERT, NCTE, MHRD, and Department of School and Mass Education of various States.

13.4.2 Role and Functions of SCERT

The following roles and functions are generally undertaken by SCERT in the State level:

- To act as an agent of change in school education including formal and non-formal education and teacher education.
- To control and supervise the working of the Elementary Teacher Education Institutions (Secondary Training Schools, and Elementary Training Schools) and to coordinate the work of the Teacher Education Institutes.
- To organize in-service training for different categories of teachers, inspecting officers, and teacher educators and to coordinate the work of other agencies operating at the state level.
- To organize programmes, including correspondence-cum-contact courses for professional development of teachers, teacher educators, and inspecting officers.
- To produce curricula, instructional materials, textbooks for the use of educational institutions, teachers of pre-schools and elementary schools.
- To provide extension service to teacher training institutions at various levels.
- To organize and implement the special education projects, sponsored by UNICEF, UNESCO, COL, NCERT, NCTE and other agencies, for qualitative improvement of school education, teacher education and supervisors of education.
- To prescribe curricula and textbooks for the schools and teacher training institutes.
- To produce instructional materials for the use of teacher educators and school teachers.
- To conduct studies and investigations on various problems of education.
- To evaluate the adult and non-formal educational programme or any other programme relating to its jurisdiction.
- To conduct public examinations specially at terminal stages like end of Class III and Class V etc., with a view to controlling quality of education and selecting candidates for scholarships through such examinations.

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- Provides resource support in terms of development of curriculum and textbooks, training packages, prototype teaching learning materials, capacity building of District Resource Groups and Block Resource Groups etc. for DPEP/SSA and Mid-day-Meal and other Projects.
- Provide assistance to preparation of Perspective Plan and Annual Work Plan and Budget for DPEP/SSA.
- Preparation of Perspective Plan and Annual Work Plan and Budget for Teacher Education.
- Introducing Distance Education Programme for training of Untrained Elementary School teachers.
- Monitoring of schools, CRCs and Training Programmes by SCERT and DIETs.
- Renewal and revision of Teacher Education Curriculum—both Elementary and Secondary.
- Disaster Management and preparedness programmes in schools.
- Conducting NRTS Examination in the state.
- Conduct of Studies sponsored by NCERT, NCTE, NIEPA, UNICEF, DPEP / SSA, EFA Society.
- Preparation of Vision 2020: An Agenda for School and Mass Education: Report of the Task Force
- Implementation of externally assisted Projects: Population and Development Education.
- Opening of State Open School under the aegis of National Institute of Open Schooling.
- Collaboration with NGOs working for Education.

Check Your Progress

5. What was the purpose of creating the SCERT?
6. List some of the main objectives of SCERT in the States.

13.5 NATIONAL POLICIES OF EDUCATION AND PROGRAMMES FOR DROPOUTS

Primary education is the basic education that ensures success, growth and development of the further stages of education. In any country the number of aspirants of primary education happens to be the greater than the other stages of education. Therefore, providing primary education happens to be one of the most challenging tasks of the Government of India. Looking at the history of development of primary education in India, we find that numerous efforts were made at various levels to ensure the provision of primary education to all the children of the country since the establishment of formal system of education in the country.

Underlining the importance of primary education to all, Gopal Krishna Gokhle had voiced the plea of 'Free and Compulsory Education to all' in the Imperial Legislative Council of Bombay in 1906. However, in 1917, Vithal Bhai Patel got the 'Compulsory Education Bill' (Popularly known as Patel Act) passed in the Legislative Council of Bombay. In 1930, the 'Compulsory Education Act' was added in the Statute Book of all British Provinces in India. The idea of providing free and compulsory education had got place in the list of fundamental rights in the constitution of free India. But, notably due to lack of sufficient funds the constituent assembly included the provision in form of Article 45 in the Directive Principles of State Policy.

The Government of India has endeavoured meticulously to ensure the achievement of universal provision of primary education through various schemes from time to time at central as well as at state level. Results of these schemes have been encouraging but not satisfying due the large number of out of school and dropout children in the country. A look at the data of the development of literacy rate in India since 1951 till 2011 endorses the fact.

Table 13.1 *Literacy Rate – India (1951-2011)*

S No.	Year	Persons	Male	Female
1.	1951	18.33	27.16	08.86
2.	1961	28.30	40.40	15.35
3.	1971	34.45	45.96	21.97
4.	1981	43.57	56.38	29.76
5.	1991	52.21	64.13	39.29
6.	2001	65.38	78.85	54.16
7.	2011	74.04	82.14	65.46

Source: ENVIS centre on Population and Environment

These schemes have undoubtedly been instrumental for kindling the light of education in the lives of millions but there is much to be done even now. A general introduction of some of the schemes of universalisation of primary education is mentioned hereunder:

Non-formal education

The scheme was introduced in 1979-80 for the children between 6 and 14 years of age who were devoid of formal schooling. The revised scheme covered all the un-served habitations throughout the country where there are no learning centres within a radius of 1km. It was a part of overall national programme frame work for universalisation of elementary education.

National Literacy Mission (NLM)

NLM was launched in 1988 with an aim of attaining a sustainable threshold literacy level of 75 per cent by 2005. The mission seeks to achieve this goal by imparting functional literacy to non-literates in the age-group of 15-35. In order to ensure that the learners make a smooth transition from guided learning to self-learning, the post-Literacy Campaigns (Continuing Education Programmes) were launched

after the basic phase. These included lifelong learning opportunity through a host of programmes viz. income-generating programme, quality of life improvement programme, and Individual interest promotion programmes.

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Fig. 13.1 *A Drive under the National Literacy Mission*

National Programme for Nutritional Support to Primary Education

The scheme commonly known as Mid-Day Meal Scheme was launched on 15 August, 1995. Along with the provision of complete and nutritive diet, the scheme also aimed at improving enrolment, attendance and retention of primary school students. Under the scheme cooked meals or processed food is provided to the children studying in all government, local bodies and government-aided schools.



Fig. 13.2 *An Endeavour of the National Programme for Nutritional*

13.5.1 District Primary Education Programme (DPEP)

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DPEP was launched in November 1994 as a major initiative to achieve the objective of Universalisation of Primary Education (UPE). The programme was implemented through state level registered societies with objectives of:

- Providing access to primary education for all children
- Reducing primary dropout rate to less than 10 per cent
- Increasing learning achievement of primary school students by 25 per cent
- Reducing the gender and social gap to less than 5 per cent



Fig. 13.3 *A Class Running under District Primary Education Programme*

Lok Jumbish

Lok Jumbish was an innovative project to evade illiteracy through people's active participation. It was launched in Rajasthan with assistance from Swadesh International Development Authority (SIDA) to achieve Education for All (EFA) by the year 2000. The programme was funded by SIDA, Government of India and Government of Rajasthan in 3:2:1 ratio. The third phase ended in June 2004 was assisted by the Development for International Development (DFID), United Kingdom.

Mahila Samakhya

This Programme of Education for Women's Equality was a concrete programme for the education and empowerment of women in rural areas, particularly of women from socially and economically marginalized groups. It was being implemented in 9,000 villages of 53 districts spread in 10 states. Mahila Sanghas were established as the nodal points where all activities were planned and provide the space where women could meet, be together and discuss their problems. The funds earmarked for the Sangh could be deposited in a bank or post office account to be used collectively by the women folk for a period up-to three years. Hence, this was a scheme of women empowerment through education.

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Fig. 13.4 *A Mahila Samakhya Gathering*

Janshala

This programme was a collective effort of the Government of India and five UN agencies – UNDP, UNICEF, UNESCO, ILO and UNFPA to provide programme support to the ongoing efforts towards achieving UEE. It was a community based programme, which aims at making primary education accessible and effective. It was centred on the girls and children in deprived communities, marginalized groups, SC/STs, minorities, working children and children with specific needs.

13.5.2 Operation Blackboard (OB)

Operation Blackboard was a centrally-sponsored programme launched in 1987 in pursuance of National Policy of Education, 1986, to provide the bare minimum crucial facilities to all primary schools in the country. Under the scheme provision of at least two reasonably large rooms with at least two teachers and necessary Teaching-Learning Materials was made essential for every existing primary school. The panel of experts in framing the NPE, 1986, experienced that one of the biggest obstacle in the universalisation of primary education is severe dearth of essential equipment in the existing primary schools. OB enhanced enthusiasm in teachers as well as students to continue or excel in primary education.

During 1993-94 the scheme was extended to cover upper primary schools also. It provided for three rooms and an additional teacher. The comprehensive scheme of Operation Blackboard (OB) the provision of amenities was extended to Scheduled Castes, Scheduled Tribes and tribal areas. Broadening the parameters of facilities, the revised scheme provided three teachers and three rooms wherever enrolment extended more than 100 in the primary school. After the primary classes, at least one room was to be provided for each class or section. Along with the extra classrooms; a headmaster-cum-office room, separate toilet facilities for girls

and boys and essential teaching learning equipment, including a library was also recommended. The construction of buildings was to be done by using innovative designs suitable to the local conditions.

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To ensure quality improvement through the operationalization of Operation Blackboard it was decided that state governments will take care of repair or replacement of the impaired or damaged teaching-learning equipment (TLMS). Enough flexibility was provided for the purchase of TLMs relevant to the curriculum and the local needs. A contingency grant for replenishment of items, consumable and minor repairs and incident expenditures was also recommended.

For qualitative development of primary education and optimum use of the Teaching Learning Materials, the existing teachers of primary schools were planned to be trained in using the teaching materials under a specially designed teacher training programme. To enhance admission and retention of girls in primary education, it was decided that at least 50 per cent of the teachers appointed will be women. Funds for the appointment of additional teachers will be borne by the Central Government. Implementation and management of the scheme was done through state governments. In 2002-03, this scheme was subsumed in Sarva Shiksha Abhiyan. Evaluating the success and achievements of the Operation Blackboard, the Implementation Report of the Eight Five Year Plan (Volume II, Unit 3, Section III, viz. Achievements during the eighth plan period); it is mentioned that 'As many as 5.23 lakh schools have been provided with books and teaching equipment worth Rs. 10,000 each, 1.47 lakh single teacher schools a second teacher and the construction of 1.74 lakh classrooms undertaken. The scheme was extended to cover upper primary schools and, with Central assistance, 47,000 schools have been allowed to purchase teaching-learning materials worth Rs. 40,000 each (Rs. 50,000 for schools in tribal areas) and 33,600 posts have been created for adding a third teacher in schools with enrolment exceeding 100. In the Eighth Plan, the expenditure on Operation Blackboard is likely to be Rs. 816.26 crore against the outlay of Rs. 279 crore. About 4.5 lakh teachers have undergone special orientation for the use of teaching materials provided under the Operation Blackboard Scheme. This training programme was called the Special Orientation of Primary Teachers (SOPT) during the Eighth Plan'.

Sarv Shiksha Abhiyan (SSA)

Sarv Shiksha Abhiyan (SSA) was launched by the Government of India in the year 2000 to achieve Universalisation of Elementary Education (UEE) in a time bound manner. The need of such programme was being felt since the 86th amendment to the Constitution providing free and compulsory Education to the all the children in India between 6 and 14 years age group as a Fundamental Right.

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This programme was evolved from the recommendations of State Education Ministers Conference held in October, 1988, to pursue Universal Elementary Education as a mission. Objectives of the programme included admission of all children between 6 and 14 yrs of age to schools under Education Guarantee Scheme by 2003. Focus on elementary education of satisfactory quality with emphasis on education for life was ensured. The programme also aimed at bridging all gender and social category gaps at primary stage by 2007 and at elementary education level by 2010.



Fig. 13.5 A Sarva Shiksha Abhiyan Society in Action

SSA is the flagship programme being implemented in partnership with state governments to cover the entire country and address the needs of 192 million children in 1.1 million habitats.

The issues and challenges underlined in the SSA are discussed in the Implementation Report of the Eight Five Year Plan (Volume II, Unit 3, Introduction section) vide the following paragraphs: 'The strategy of educational development during the next decade of planning takes into account various emerging factors like (i) the national goal of providing primary education as a universal basic service, (ii) the Supreme Court judgment declaring education to be a fundamental right for children up-to 14 years of age, (iii) the need to operationalize programmes through Panchayati Raj Institutions (PRIs) and Urban Local Bodies (ULBs), (iv) the legal embargo on child-labour, (v) the provisions of the Persons with Disabilities Act, 1995, and (vi) heightened awareness of human rights violations in respect of women, children and persons from disadvantaged sections of society. It is also realized that a large number of out-of-school children, who figure neither in school enrolments nor in the calculations of identifiable child-labour, are to be provided access to schooling.

It is equally necessary that the problem of universal elementary education and literacy is tackled through a strong social movement with clearly perceived

goals and involving the State and Central Governments, Panchayati Raj Institutions, Urban Local Bodies, voluntary agencies, social action groups, the media and every supportive element in society'.

Check Your Progress

7. When and why was the National Literacy Mission (NLM) launched?
8. What are the objectives of District Primary Education Programme (DPEP)?
9. What facilities and provisions have been offered under the Operation Blackboard?

13.6 ANSWERS TO 'CHECK YOUR PROGRESS' QUESTIONS

1. District Institute of Education and Training (DIET) works under State Council of Educational Research and Training (SCERT) of the state. Principal works as the head of the DIET with teachers in different subjects and pedagogy teachers. Trainee teachers get complete education in content and pedagogy to transact school curriculum up to elementary level. Based on the above functions, a DIET would need to have staff strength in the following areas:
   (i) Foundations of Education and Pedagogy
   (ii) The subjects taught at the Elementary stages
2. The DIETs are envisioned as 'Academic Lead Institutions' to provide guidance to all academic functionaries in the district. Some of the main functions and roles undertakes by DIETs are as follows:
   - Quality teacher training, leading to high learning levels among students.
   - Improving pedagogy and making classroom learning interesting.
   - Developing curriculum and academic material such as child-friendly textbooks.
   - Planning and management of primary, adult education and non-formal education of the district.
   - Conducting research, developing low and no-cost teaching aids, supporting innovative materials and methods.
   - Evaluating students, teachers, programmes and institutions.
3. The National Council of Educational Research and Training (NCERT) performs the important functions of conducting and supporting educational research and offering training in educational research methodology. NCERT also supports research programmes of other institutions/organizations by providing financial assistance and academic guidance. Assistance is given

to scholars for publication of their Ph.D. theses. Research fellowships are offered to encourage studies in school education to create a pool of competent research workers.

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4. Pre-service and in-service training of teachers at various levels; pre-primary, elementary, secondary and higher secondary, vocational education, educational technology, guidance and counselling, and special education are the areas of training in which NCERT works. The pre-service teacher education programmes at the Regional Institutes of Education (RIEs) incorporate many innovative features. The RIEs also undertake the training of key personnel of the states and of state level institutions and training of teacher educators and in-service teachers.
5. The National Policy on Education (1986) had recommended the creation of State Council of Educational Research and Training (SCERT) in each State to decentralize the functions of quality education, research and training. All states have their State Council of Educational Research and Training (SCERT). SCERT works for educational development of School and Teacher education of the States. It is responsible for initiating and continuation of state-run projects and implementing the project lunched by the centre. It coordinates with NCTE and NCERT in the matter relating to educational development of School and Teachers.
6. Some of the main objectives of SCERT in the States are as follows:
   - To work in the areas of elementary education and teacher education programme (elementary and secondary) in the state.
   - To organize pre-service training for prospective teachers, and capacity building programmes for in-service teachers, conferences, meetings, seminars and briefing sessions for State Education Officers and field functionaries.
   - To organize induction level training programmes for the new entrants/ teaching workforce of the teachers training institutions.
   - To restructure syllabus and curriculum used at the elementary education and teacher education sector so as to make it need-based and relevant based and functional.
   - To undertake, aid, promote and coordinate research and innovation activities among faculty members of teacher training institutions.
7. NLM was launched in 1988 with an aim of attaining a sustainable threshold literacy level of 75 per cent by 2005. The mission seeks to achieve this goal by imparting functional literacy to non-literates in the age-group of 15-35. In order to ensure that the learners make a smooth transition from guided learning to self-learning, the post-Literacy Campaigns (Continuing Education Programmes) were launched after the basic phase. These included lifelong

learning opportunity through a host of programmes viz. income-generating programme, quality of life improvement programme, and Individual interest promotion programmes.

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8. District Primary Education Programme (DPEP) was launched in November 1994 as a major initiative to achieve the objective of Universalisation of Primary Education (UPE). The programme was implemented through state level registered societies with objectives of:
   - Providing access to primary education for all children
   - Reducing primary dropout rate to less than 10 per cent
   - Increasing learning achievement of primary school students by 25 per cent
   - Reducing the gender and social gap to less than 5 per cent
9. Under the scheme provision of at least two reasonably large rooms with at least two teachers and necessary Teaching-Learning Materials was made essential for every existing primary school. The panel of experts in framing the NPE, 1986, experienced that one of the biggest obstacle in the universalisation of primary education is severe dearth of essential equipment in the existing primary schools. OB enhanced enthusiasm in teachers as well as students to continue or excel in primary education. During 1993-94 the scheme was extended to cover upper primary schools also. It provided for three rooms and an additional teacher. The comprehensive scheme of Operation Blackboard (OB) the provision of amenities was extended to Scheduled Castes, Scheduled Tribes and tribal areas. Broadening the parameters of facilities, the revised scheme provided three teachers and three rooms wherever enrolment extended more than 100 in the primary school. After the primary classes, at least one room was to be provided for each class or section. Along with the extra classrooms; a headmaster-cum-office room, separate toilet facilities for girls and boys and essential teaching learning equipment, including a library was also recommended. The construction of buildings was to be done by using innovative designs suitable to the local conditions.

   To ensure quality improvement through the operationalization of Operation Blackboard it was decided that state governments will take care of repair or replacement of the impaired or damaged teaching-learning equipment (TLMS).

13.7 SUMMARY

- District Institute of Education and Training (DIET) is the ground level institute to prepare teachers for elementary classes. It organizes training and orientation programmes relating to elementary education.

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- Principal works as the head of the DIET with teachers in different subjects and pedagogy teachers. Trainee teachers get complete education in content and pedagogy to transact school curriculum up to elementary level.
- The DIETs are envisioned as 'Academic Lead Institutions' to provide guidance to all academic functionaries in the district.
- All states have their State Council of Educational Research and Training (SCERT). SCERT works for educational development of School and Teacher education of the States.
- SCERT has been given the responsibility to conduct these activities at the state level on behalf of NCERT for the improvement of education. Soon state governments started to establish SCERT in their States. NCT of Delhi established its SCERT in 1988.
- Director of SCERT holds the apex position in the official working, next to four Deputy Directors, one for each Department—Administration, Teacher Education, Academics, and Science & Mathematics.
- Primary education is the basic education that ensures success, growth and development of the further stages of education. In any country the number of aspirants of primary education happens to be the greater than the other stages of education.
- In 1930, the 'Compulsory Education Act' was added in the Statute Book of all British Provinces in India. The idea of providing free and compulsory education had got place in the list of fundamental rights in the constitution of free India.
- The Government of India has endeavoured meticulously to ensure the achievement of universal provision of primary education through various schemes from time to time at central as well as at state level.
- NLM was launched in 1988 with an aim of attaining a sustainable threshold literacy level of 75 per cent by 2005. The mission seeks to achieve this goal by imparting functional literacy to non-literates in the age-group of 15-35.
- Mahila Sanghas were established as the nodal points where all activities were planned and provide the space where women could meet, be together and discuss their problems.
- Janshala is a community based programme, which aims at making primary education accessible and effective. It was centred on the girls and children in deprived communities, marginalized groups, SC/STs, minorities, working children and children with specific needs.
- Operation Blackboard was a centrally-sponsored programme launched in 1987 in pursuance of National Policy of Education, 1986, to provide the bare minimum crucial facilities to all primary schools in the country.

- For qualitative development of primary education and optimum use of the Teaching Learning Materials, the existing teachers of primary schools were planned to be trained in using the teaching materials under a specially designed teacher training programme.
- Sarv Shiksha Abhiyan (SSA) was launched by the Government of India in the year 2000 to achieve Universalisation of Elementary Education (UEE) in a time bound manner.
- It is equally necessary that the problem of universal elementary education and literacy is tackled through a strong social movement with clearly perceived goals and involving the State and Central Governments, Panchayati Raj Institutions, Urban Local Bodies, voluntary agencies, social action groups, the media and every supportive element in society'.

13.8 KEY WORDS

- **Continuous and Comprehensive Evaluation:** This was a process of assessment, mandated by the Right to Education Act, of India in 2009.
- **The Midday Meal Scheme:** This is a school meal programme of the Government of India designed to better the nutritional standing of school-age children nationwide.
- **TLMs:** Teaching learning materials (TLMs) are the tools, which are used by teachers to help learners to learn concept with ease and efficiency.
- **Lok Jumbish:** This was an innovative project to evade illiteracy through people's active participation.
- **Operation Blackboard:** The scheme of Operation Blackboard was launched in 1987 in pursuance of NPE-POA, to provide minimum essential facilities to all primary schools in the country.
- **The 86th Amendment**: This provided Right to Education as a Fundamental Right in part-III of the Constitution.

13.9 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. What are the main objectives of DIET?
2. Mention the organizational structure of the SCERT in the State.
3. Write a short note on Mid-Day Meal Scheme in schools.

4. How does Operation Blackboard contribute to strengthening education at primary level?
5. Why was Sarv Shiksha Abhiyan (SSA) launched?

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Long-Answer Questions

1. Discuss the formation of DIET, NCERT and SCERT in India's education system.
2. Examine the roles and functions undertaken by SCERT at the State level.
3. Critically analyse the impact of various programmes for school dropouts.

13.10 FURTHER READINGS

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UNIT 14 DIFFERENT LEVELS OF EDUCATION

Structure

14.0 INTRODUCTION

In India, Universalisation of Elementary Education (UEE) implies "Elementary Education for All". It means that all children irrespective of their economical background, from rural or urban area, have right to get education. It also means free education which can be provided at different stages: Universalisation of Provision, Universalisation of Enrolment and Universalisation of Retention until they complete their Elementary Education It is comprehensively mandated in Right to Education Act 2009 that every child have equal right to take education. After Independence, both the central and State governments took various initiatives and launched a slew of programmes and campaigns to ensure that no child is left without elementary education. The central government launched its flagship programme — Sarva Shiksha Abhiyan (SSA) in 2001–02 for achieving the goal of UEE. Earlier, in 1994, the District Primary Education Programme (DPEP), a Centrally-sponsored scheme for holistic development of primary education covering Classes I to V was introduced. Today, the Education Guarantee Scheme (EGS) and Alternative and Innovative Education (AIE) under the aegis of SSA are providing avenues to children in the age group of 6–14 years.

Pre-primary level education is designed to work on physical, mental, emotional, and social development of the children between the age of 3 and 5 years. To ensure that it caters to the needs of the children, it has been integrated with Integrated Child Development Services (ICDS). Early Childhood Education (ECE) Programme was launched to achieve various goals in the development of

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the whole child. Emphasizing the significance of primary education as the precursor of future education, Article 45 of our Constitution declares that the state shall endeavour to provide for a free and compulsory education for all children until they complete the age of fourteen, i.e. class I to VIII. Here, the universalization of free and compulsory education has a broad connotation. Later on, primary education was divided into two parts: lower primary education (class I to V) and upper primary education (class VI to VIII).

In order to transform girls' literacy rate and educational status at different stages despite various societal problems especially in rural India, government has been taking several long-term steps.

This unit introduces you to different levels of education and gives an in-depth insight into various programmes which have been launched to significantly improve elementary level of education with special emphasis on girls' education at various stages.

14.1 OBJECTIVES

After going through this unit, you will be able to:

- Understand pre-primary and primary level of elementary education
- Discuss the aims and objectives of pre-primary and primary level of education
- Recognise the objective of Sarva Shiksha Abhiyan (SSA)
- Analyse the contribution of district primary education programme (DPEP)
- Analyse the problems of girls' education at various level in schools

14.2 ELEMENTARY EDUCATION

Post-Independence, various programmes and campaigns have been launched to strengthen elementary education in India. Let us discuss these schemes in detail. These are as follows:

I. Sarva Shiksha Abhiyan (SSA)

Sarva Shiksha Abhiyan (SSA) is the national flagship programme launched in 2001–02 for achieving the goal of Universalization of Elementary Education (UEE) through a time-bound approach in partnership with states and local bodies. It is also an attempt to provide an opportunity for improving human capabilities to all children (6–14 years age), through provision of community-owned quality education in a mission mode.

SSA Goals

The goals of SSA are as follows:

- Enrolment of all children in school, Education Guarantee Centre, 'Alternate school', 'Back-to-School' camp by 2005.

- Retention of all children till the upper primary stage by 2010.
- Bridging of gender and social category gaps in enrolment, retention and learning.
- Ensuring that there is significant enhancement in the learning achievement levels of children at the primary and upper primary stage.

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Major Components of SSA

The major components of SSA are as follows:

- Opening new schools
- Alternative schooling facilities for out-of-school children
- School grant @ Rs. 2000/- per annum
- Teacher grant @ Rs. 500/- per teacher per year
- Teaching-learning equipment for new schools
- School maintenance grant @ Rs. 5000/- per annum
- Civil works (school buildings, additional classrooms, and drinking water and toilet facilities, boundary walls, block resource centres, cluster resource centres, and so forth.)
- Teachers for new schools and additional teachers in existing schools to improve teacher-pupil ratios
- Inclusive education for children with special needs
- In-service teacher training
- Community participation and training
- Promoting girls' education and early childhood care
- Free textbooks for scheduled castes (SCs), scheduled tribes (STs) and girls
- Remedial teaching
- Monitoring, evaluation and research

The SSA covers all States and Union Territories and reaches out to 19.4 crore children in 12.3 lakh habitations.

National Mission of SSA

In order to ensure that the priority to UEE is translated into action, the organizational set-up and the monitoring structure draw their authority from the highest political levels in the country.

The Prime Minister of India heads the National Mission for SSA which monitors the progress made under the Sarva Shiksha Abhiyan. The Executive Committee of the National Mission is chaired by the Minister for Human Resource Development. The National Mission includes representation of major political parties, the non-government sector, educationists, teacher unions, scientists and eminent experts.

Sub-Missions

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Six sub-missions have been constituted by the National Mission to function as review and support mechanisms for SSA implementation. They are in the following areas:

- Provision of basic minimum conditions including physical infrastructure and teachers.
- Training of teachers and strengthening of academic support institutions (and other aspects of quality improvement).
- Analysing learning outcomes/monitoring of students' achievement levels.
- Capacity building for planning, management, monitoring and research/ evaluation.
- Education of disadvantaged groups including girls, SC/ST/minorities/and disabled children.
- Social mobilization, community involvement and role of PRIs (Panchayati Raj Institutions).
- Findings and suggestions of Joint Review Missions of SSA (July 2006 and January 2007).

Ensuring Access and Equity

Concern for education of socially disadvantaged groups is interwoven in SSA. Educational incentives to offset cost of education are provided to SC, ST and females. SSA also enables context-specific interventions for promoting educational opportunities to such groups. Districts with substantial population of SC, ST and minority communities have been identified as special focus districts for targeted interventions under SSA.

Towards Inclusion

Sarva Shiksha Abhiyan aims to ensure that every child with special needs, irrespective of the kind, category and degree of disability, is provided education in an appropriate environment. The interventions for inclusive education include early detection and identification, functional and formal assessment, appropriate educational placement, preparation of individualized educational plan, provision of aids and appliances, teacher training, resource support, removal of architectural barriers, monitoring and evaluation and a special focus on girls.

Improving Quality

Quality improvement is one of the most important components under SSA. To ensure useful, relevant, and quality education, SSA provides support for teacher recruitment and training, curriculum/ textbook preparation, development and distribution of teaching-learning materials, annual school grants, pupil assessment systems, remedial teaching, computer-aided learning, establishment of decentralized

academic resource support centres, distance education, monitoring and research activities related to quality issues.

Structure of the SSA Mission

At the national level, the SSA Mission comprises a Governing Council and an Executive Committee as per the following composition:

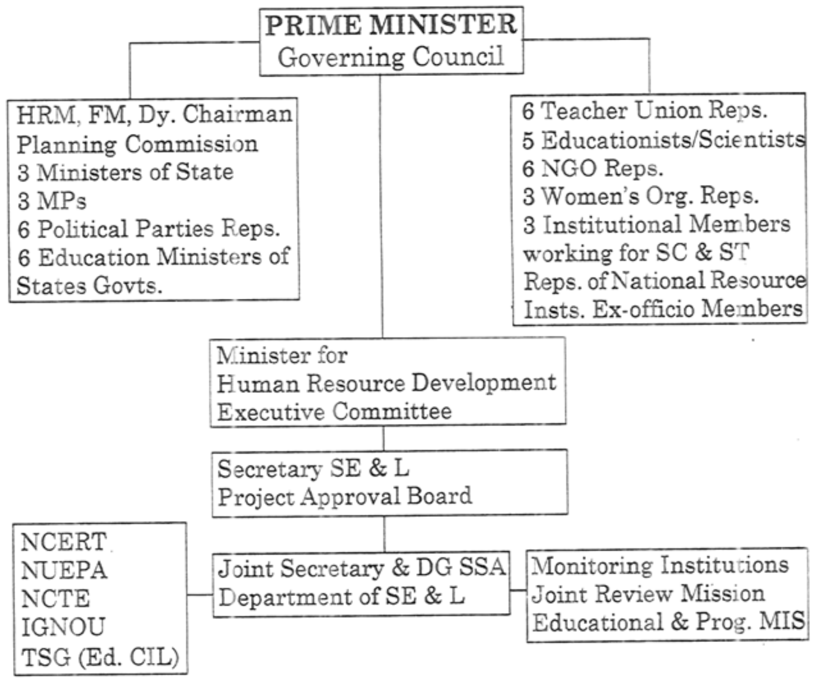


Fig 14.1 *Structure of the SSA Mission*

Findings and Recommendations of the Joint Review Commission of July 2006 and January 2007

- In the light of the successes in increasing access, the focus needs to shift from universal enrolments to universal retention.
- distinct investment in the special focus districts concentrates resources and attention on pockets of multiple deprivation. For effective results to flow from this investment, complementary measures are required to strengthen the administrative and managerial capacity.
- Given the magnitude of urban deprived children and children who migrate with their families, it is suggested that illustrative guidelines and a framework of action be developed at the national level. On account of the variety of administrative functionaries that operate in the urban areas, convergence with the Urban Renewal Mission and concerned departments in the urban sector along with greater public-private partnership is necessary.

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- Greater use of innovation funds should be encouraged for interventions to boost the performance of first-generation learners, especially SC and ST children and girls and develop a framework at the national level for identifying verifiable indicators of quality at the state and sub-state levels, using a participatory mode and involving all categories of stakeholders. These indicators would need to take into account differing contexts and learning conditions and should inform all provisions for quality enhancement.
- In the context of the low levels of learning of basic skills across the country arid high drop-outs in early grades, Grades I and II should be given special focus in terms of teachers and other provisions. Here, the emphasis should be to provide assistance in attending school, and guarantee of attaining basic literacy and numeracy skills by Grade II.
- The focus of the programme should shift in a decentralized mode to the individual school and the teacher and its needs, within a decentralized framework, with district level initiatives and innovations being promoted. Convergence of all quality initiatives under SSA could move towards encouraging, enabling and empowering the teacher to be able to better deliver her role in guiding children's learning. For this, capacities need to be built at the district and sub-district levels to think locally, while they face the challenge of autonomously attaining broad goals of quality in education adopted at the state level.
- **Equity:** There is significant increase in the gross enrolment ratios (GER) of girls in 2003–04, in districts and areas where gender gap is wide, and where a large number of 11–14 age group girls are out of school, area-specific strategies should be undertaken. There should be proper distribution of female teachers. The mission has endorsed the policy of recruiting 50 per cent female teachers. The mission has recommended a continued focus and state sharing on the education of children from ST communities. A more organized data by districts and blocks on out-of-school Muslim children is needed for formulating strategies to bring them to schools. A more rigorous monitoring and building of professional capacities at the state level to support children with special needs is required.
- **Quality of education:** Measures to improve basic literacy and numeracy at the class I and II level should be taken up by all states. A renewed focus should be on improving classroom processes. States should formulate the vision of educational outcomes and generate 'three-year' plans to realize this mission. An action plan for computer-aided learning should be developed.

Table 14.1 Cumulative Growth under SSA up to 2011-2012

Serial No.	Item	Sanctions
1	Opening of New Schools	2,09,914
2	Opening of New Upper Primary Schools	1,73969
3	Construction of Primary Schools	1,92392
4	Construction of Upper Primary Schools	1,05,562
5	Construction of Additional Classrooms	16,03,789
6	Toilets	5,83,529
7	Drinking Water Facilities	2,23,083
8	Teachers	19,65,207

Source: Ministry of HRD

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II. District Primary Education Programme (DPEP)

The District Primary Education Programme (DPEP) launched in 1994 is a Centrally Sponsored Scheme for holistic development of primary education covering Classes I to V. The three major objectives of the DPEP are to (i) Reduce drop-out rates to less than 10 per cent, (ii) Reduce disparities among gender and social groups in the areas of enrolment, learning achievement, and so forth to less than 5 per cent (iii) Improve the level of learning achievement compared to the baseline surveys.

The components of the programme include among others:

- Construction of classrooms and new schools
- Opening of Alternative Schooling Centres
- Appointment of new teachers
- Setting up early childhood education centres
- Strengthening of State Councils of Educational Research and Training (SCERTs)/District Institutes of Educational Training (DIETs)
- Setting up of Block Resource Centres/ Cluster Resource Centres
- Teacher training development of teaching-learning material
- Special interventions for education of girls
- SC/ST, working children

Initiatives for providing integrated education to disabled children and distance education for teacher training have also been incorporated in the DPEP Scheme.

Additionality Factor of DPEP: DPEP is based on the principle of 'additionality' and is structured to fill in the existing gaps by providing inputs over and above the provisions made under Central and State Sector Schemes for primary education.

District Selection Criteria: (a) Educationally backward districts with female literacy below the national average, (b) Districts where Total Literacy Campaigns (TLCs) have been successful leading to enhanced demand for elementary education.

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Funding of the Project: DPEP is an externally aided project. 85 per cent of the project cost is met by the Government of India and the remaining 15 per cent is shared by the concerned state government. The Government of India share is sourced through external assistance. External assistance of about Rs. 6938.00 crore, comprising Rs. 5137.00 crore as credit from the International Development Association (IDA) and Rs. 1801.00 crore as grant from BC/DFID/UNICEF/ Netherlands, has been tied up for DPEP till date.

Coverage of DPEP: At present, DPEP is in operation in nine states covering 123 districts. DPEP at its peak, was operational in 273 districts in eighteen states. However, with the progressive closure of different phases of the programme, it now exists in 123 districts only.

Monitoring and Evaluation of DPEP: The programme is periodically reviewed through the mechanism of Joint Review Missions, Project Management Information System (PMIS), Educational Management System (EMIS), programme impact studies, and so forth. A mid-term in-depth review of DPEP Phase-I, II and III states have also been carried out by the Joint Review Missions in 1997–98, 1999–2000 and 2003–04. The reviews and evaluation studies of the programme have brought out that the programme has resulted in significant increase in enrolment, improvement in learning achievement, reduction in repetition rates/drop-outs with increased community involvement and improvements in classroom processes.

Major Achievements under DPEP

The significant achievements of the DPEP are as follows:

- Opening of about 1, 60,000 new schools including about 84,000 Alternative Schooling Centres (ASCs).
- Construction of about 53,000 school buildings, 58,600 additional classrooms, 16,600 resource centres and 29,000 repair works. Nearly 64,000 toilets have been constructed. Facilities for drinking water have been provided at 25,000 places.
- Substantial increase in enrolment of girls.
- Appointment of nearly 1, 77,000 teachers.

III. Education Guarantee Scheme and Alternative and Innovative Education

The Education Guarantee Scheme (EGS) and Alternative and Innovative Education (AIE) component of Sarva Shiksha Abhiyan (SSA) are operationally proactive and provides avenues to children in the age group of 6–14 years. This component was designed to cover those children who are habitants of remotely located inaccessible habitations, never been to school, drop-outs or could not continue/ complete their elementary education because of one or the other reason.

EGS and AIE are, therefore, vital components of SSA for achieving Universalization of Elementary Education (UEE). It has the following broad strategies:

- Setting up of EGS schools in school-less habitations.
- Interventions for mainstreaming of 'out-of-school' children through bridge courses (residential as well as non-residential), back to school camps, and so forth.
- Strategies for specific groups of children, who need flexible and innovative interventions to meet their requirements of elementary education.

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EGS and AIE programmes also envisage centres for street and slum children, remedial coaching for children enrolled in formal schools, short duration summer camps, and others.

The ratio of sharing of expenditure between the Centre and States on this component is 75:25 respectively. In case of support to voluntary agencies (VAs), Central Government bears 100 per cent cost (within the overall cost ceilings). The EGS and AIE, being part of SSA, have no separate budget provision and expenditure on the schemes is incurred from the overall budget provision of SSA.

The scheme is largely implemented and monitored by state-level societies set-up for SSA by the State/UT governments, which have powers to appraise and approve proposals running either through state agencies, or voluntary sector.

The Department of Elementary Education and Literacy regularly monitors the implementation of EGS/AIE component in the states. This is done through convening quarterly meetings of Alternative Schooling Coordinators of the state SSA programmes regularly, wherein state-wise progress is reviewed, interstate experiences and good practices are shared and the issues concerning the programme are deliberated upon for better execution.

IV. National Programme of Nutritional Support to Primary Education (Mid-Day Meal Scheme)

A nation-wide programme of Nutritional Support to Primary Education (popularly called Mid-Day Meal Scheme or MDM) was launched on 15 August, 1995. A major objective of the scheme is to enhance the nutritional status of students in primary classes studying in government, local body and government-aided schools.

The programme aims to provide wholesome cooked/processed food through local bodies/authorities such as panchayats and Nagar Palikas which are expected to develop institutional arrangement has not taken place, foodgrains (wheat/rice) at the rate of 3 kg per student per month are distributed to the targeted children, subject to a minimum attendance of 80 per cent.

The programme was expanded in a phased manner and has seen an all-India coverage during 1997–98 except for Lakshadweep, which runs its own programme. The central support under this programme is to provide foodgrains free of cost to children through the Food Corporation of India. The cost is being reimbursed at below poverty level (BPL) rate.

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The Supreme Court in its order dated 29 November 2001 directed that under the scheme, cooked meals be provided in a time-bound manner by those States/UTs that do not have such a programme. As a result, cooked meals are now being served in a number of states.

Coverage: In 1995–96, the scheme covered nearly 3.34 crore children. 10.22 crore children benefit from hot cooked nutritious food in 11.56 lakh schools during 2014-2015.

V. National Programme for Education of Girls at Elementary

Level (NPEGEL)

In July 2003, the Government of India approved a new programme called 'National Programme for Education of Girls at Elementary Level' (NPEGEL) as an amendment to the existing scheme of Sarva Shiksha Abhiyan (SSA) for providing additional support for education of underprivileged/disadvantaged girls at the elementary level. The scheme is implemented in Educationally Backward Blocks (EBBs) where the level of female literacy is below, and the gender gap above the national average in blocks of districts which are not covered under EBBs but have at least 5 per cent SC/ST population and where SC/ST female literacy is below 10 per cent, and also in select urban slums.

VI. Free and Universal Compulsory Elementary Education

Right to Education

After Independence, the Government of India realized the significance of elementary education as it is the base of progress and accordingly incorporated Article 45 in the Constitution. Since the progress in the field was not in accordance with the provisions of this Article, it was considered necessary to amend it to give more impetus.

The following amendments were made in the Constitution in 2002.

- ***Article 21 A: Right to Education***: The state shall provide free and compulsory education to all children of the age 6-14 years in such manner as the state, may, by law determine.
- **Article 45**: Provision for early childhood care and education to *children below the age of six years:* The state shall endeavour to provide early childhood care and education for all children under the age of six years. [Substituted by the Constitution (Eighty-Sixth Amendment) Act, 2002.]
- ***Article 51A (K): Fundamental Duties***: It shall be the duty of every citizen of India who is a parent or guardian to provide opportunities for education to his child or, as the case may be, in the age group of 6-14 years.

  [Inserted by the Constitution (Eighty-Sixth Amendment) Act, 2002] Compulsory Education Acts already exist in nineteen states but these have not been enforced on account of several constraints, primarily on account of lack of political will.

VII. Kasturba Gandhi Balika Vidyalaya Scheme

An estimated provision of ' 1064.80 crore was made for the Tenth Plan. Apart from NPEGEL, a new scheme called Kasturba Gandhi Balika Vidyalaya (KGBV) was approved during 2004–05 for setting up 750 residential schools with boarding facilities at elementary level for girls belonging predominantly to the SC, ST, other backward castes (OBC) and minorities in difficult areas.

VIII. Prathmik Shiksha Kosh

An education cess of 2 per cent on all direct and indirect central taxes has been imposed through the Finance (No. 2) Act, 2004. Soon after the relevant Bill was introduced in Parliament on 8 July, 2004, action was initiated for the creation of a separate, dedicated, non-lapsable fund to be named as 'Prathmik Shiksha Kosh' and maintained by the Ministry of HRD, Department of Elementary Education and Literacy. The proceeds would be available on a roll-over basis for the schemes of Basic Education and the Mid-Day Meal Scheme. An outlay of Rs. 9236.40 has been provided for this scheme in 2015-16 budget, which is inclusive of Rs. 907.00 crore for the north-eastern region and Sikkim.

IX. Janshala Programme

The Janshala Programme aims at supporting the efforts for UEE by providing primary education to the children from SC groups, minorities, working children and children with special needs. It emphasizes the active involvement of the community in primary education programmes and training of teachers. It is in operation in 139 blocks of nine states. It also covers the cities of Hyderabad, Bhubaneshwar, Pune, Cuttack, Jaipur, Lucknow, Ajmer, Bharatpur, Jodhpur and Bhilai.

Check Your Progress

1. When and why was Sarva Shiksha Abhiyan (SSA) launched?
2. What are the major objectives of the DPEP?
3. How do EGS and AIE function as vital components of SSA for achieving the UEE?
4. Why did Government launch 'National Programme for Education of Girls at Elementary Level' (NPEGEL)?

14.3 PRE-PRIMARY LEVEL EDUCATION: AIMS AND OBJECTIVES

Pre-primary level education is meant for the children between the age of 3 and 5 years. It is designed to work on their physical, mental, emotional, and social development, etc. This kind of learning takes place in a group setting which is generally named as nursery school education or kindergarten education. These group settings are promoted and specially designed to cater to the needs of the

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children, provide them care they need and supervision in the substance they learn outside of their homes. In 1986, National Policy for Education (NPE) has taken big strides towards ensuring that all children get the benefit from the early education. NPE has given it high priority. To guarantee this to every child, it has been integrated with Integrated Child Development Services (ICDS). In order to look seriously into this aspect, various committees and organizations namely A. Wood Committee Britain's Department of Education and Science, Indian Child Education Conference, Education Commission; U.S. Research and Policy Committee for Economic Development, Sergeant Report, Central Advisory Board of the Government of India, Central Social Welfare Board, UNESCO, etc. and eminent educationists and politicians like McDonald, Murlidharn, Zakir Hussain and Evans pointed out early education as the essential factor that helps develop a child's habits, social aptitude and emotional intelligence, good health habits, group involvement, independence in thought; curiosity, creativity, etc.

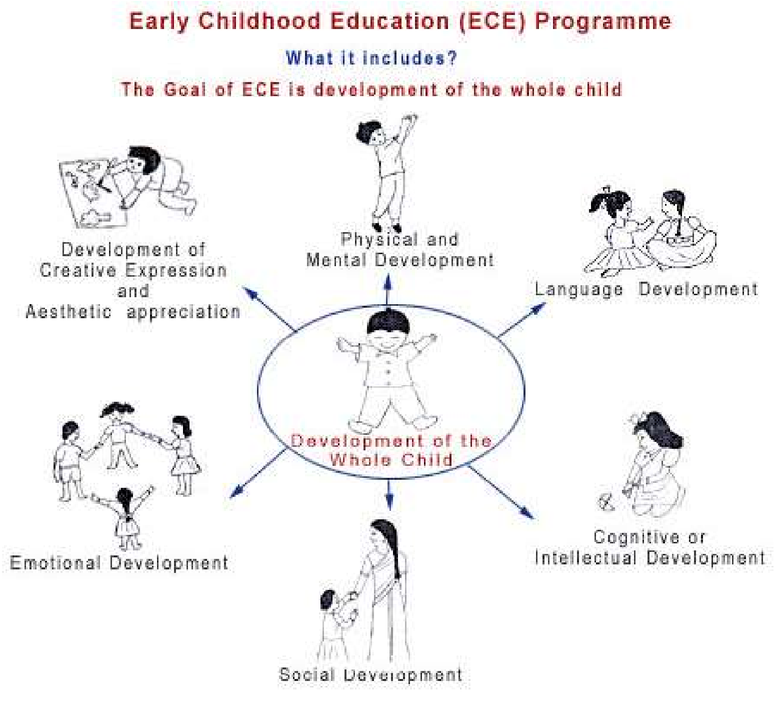


Fig. 14.2 Early Childhood Education (ECE) Programme

Source: *ICDS Department of Social Welfare and NMP, Chennai*

Objectives of pre-primary level education:

There are nine main objectives of pre-primary level of education. These are as follows:

1. To give the child opportunities to develop different interests and skills of different kinds. These skills the child might use to gain better employment options in the future
2. To provide comprehensive and continuous medical supervision. This includes the role of school in giving an environment and teach them basic skills

necessary for the development of good physique, muscular coordination and motor skills.

3. Language development among pre-school children should also be of concern
4. To develop the ability in a child to express his thoughts and feelings clearly.
5. To stimulate the intellectual curiosity and help them to understand the world to foster new interest through opportunities to explore, investigate and experiment with the world around
6. To develop healthy habits like personal hygiene such as dressing, toilet habits, eating, washing, cleaning etc.
7. To encourage aesthetic appreciation among pre-school children. They should be motivated to observe natural phenomena like plants and animals.
8. To establish unison between home life and external environment
9. Education if provided and looked after properly in this stage can be preventive as it will help a lot of students from never developing various learning disabilities.

Early Childhood Education (ECE) Programme includes various goals in the development of the whole child. These are:

1. Physical and Motor Goals
   (a) A programme that fosters physical and motor development of infants should allow opportunities for:
      i. Developing physical strength
      ii. Developing the five senses
      iii. Developing eye-hand coordination
      iv. Developing muscular coordination and balance
      v. Practicing gross motor skills of crawling, standing and walking
      vi. Practicing fine motor skills of reaching out and grasping
   (b) A programme for toddlers should allow opportunities for:
      i. Acquiring physical strength
      ii. Refining eye-hand coordination
      iii. Using the gross motor abilities of waking, running and jumping
      iv. Practicing fine motor abilities of grasping and scribbling
      v. Developing body balance and coordination
   (c) For the pre-schooler, the programme should allow opportunities for:
      i. Developing body balance and coordination
      ii. Physical growth and development
      iii. Gaining muscular control and developing fine and gross motor skills

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iv. Such as running, hopping, catching, throwing, jumping, drawing, Painting, scribbling and writing
v. Developing an awareness of the body and its relationship in space
vi. Establishing desirable feelings towards one's body and its functions
vii. Establishing desirable health, hygiene and feeding habits

These are some long term goals one can set to foster physical and motor abilities.

2. Cognitive Goals
   (a) Some of the long-term cognitive goals for infants can be:
      i. Fostering the skills of discrimination and generalization
      ii. Helping them to know the link between their actions and those of others
      iii. Helping them to understand that they can have an impact on things
      iv. Providing opportunities for goal-directed behaviour
      v. Enabling them to learn about objects and things
   (b) When working with toddlers you should:
      i. Encourage them to try out and experiment
      ii. Give them opportunities to explore on their own and find solutions to simple problems
      iii. Help them to know that by varying their actions they can have different effects on objects
      iv. Encourage them to try out different methods of solving a problem and adopt the one that is most suitable
      v. Allow opportunities for make-believe play
      vi. Help them to understand simple cause and effect relationships
      vii. Help them to gain information about things around them
   (a) A programme for pre-schoolers should:
      i. Help them develop a positive attitude towards learning
      ii. Enable them to discover the world around them on their own and solve problems
      iii. Sharpen their sensory awareness by building upon their vision, hearing, touch, taste and smell
      iv. Foster a scientific attitude by helping them to make observations and arrive at conclusions
      v. Foster their ability to make decisions
      vi. Give opportunities to use the mental abilities of matching, perceiving common relations, grouping, conservation, seriation and temporal ordering in day-to-day situations

vii. Help them to develop concepts
viii. Enhance their reasoning skills and enable them to determine simple cause-and effect relationships
ix. Give them opportunities to be creative
x. Develop their attention span and memory
xi. Help them to follow directions and instructions

3. Language Goals
   i. Providing opportunities for interaction with adults and peers so as to help children develop language skills
   ii. Helping children increase their vocabulary
   iii. Helping them to put their ideas into words and sentences and to express themselves clearly
   iv. Fostering pre-writing and pre-reading skills
   v. Fostering conversational skills

4. Social Goals
   i. Develop attachment with the caregivers that will lay the foundation for a trusting attitude
   ii. Respond to others and initiate 'dialogues'.

(a) When working with toddlers you must
   i. Encourage them to do some things on their own and develop some independence
   ii. Foster in them feelings of empathy and encourage them to show helpful behaviour
   iii. Give them opportunities to know what they can do

(b) Through the following long-term goals you can help pre-schoolers to develop social relationships and enable them to be socially well-adjusted.
   i. Build a positive relationship with their family, peers and other adults
   ii. Learn to cooperate, show empathy and helpful behaviour
   iii. Learn to respect the rights of others
   iv. Develop a sense of self-worth and a positive self-esteem which will lead to a good concept of the self
   v. Learn to control undesirable behaviour and acquire socially acceptable ways of behaviour
   vi. Learn to function as members of a group
   vii. Assume responsibility and develop independence and initiative
   viii. Understand that people are different and accept them
   ix. Develop desirable social values

x. Develop leadership skills
xi. Learn to work by oneself
xii. Listen to conversation arid instructions

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5. Emotional Goals

The emotional goals are global as compared to the other goals. Therefore, instead of stating them separately for each age group, we have put them together. Generally speaking, the following long-term goals will help children become emotionally sound:

i. Understand their emotions and to express these in constructive and socially acceptable ways
ii. Understand others and feel empathy for them
iii. Persist in their efforts until a task is completed
iv. Accept and adjust to opposition and failure
v. Develop confidence in themselves and in others, i.e., develop an attitude of trust learn to value themselves, i.e., build a positive self-concept
vi. Becoming self-reliant

Check Your Progress

5. How is pre-primary level education designed in India?
6. List some of main objectives of pre-primary level of education.

14.4 PRIMARY LEVEL EDUCATION: AIMS AND OBJECTIVES

The general meaning of the word 'primary' is 'first in order or principal'. In other words, primary education means the education which is imparted to children in the beginning. It is the principal education as it lays the foundation for future education, language and medium of communication. At this level, children are trained in the primary activities of society and social life. However, an opinion over the exact age to be included in primary education, the classes to be included in it and the nature of its curriculum varies from country to country.

In 1937, Home Governments were formed in the provinces of India. In the same year, Mahatma Gandhi presented the 'National Education Scheme' in which the proposal for free and compulsory education from class I to VIII for children between the age group of 6-14 years was made. For this purpose, Mahatma Gandhi and his associates prepared a mother-tongue and basic crafts oriented curriculum. Since then, primary education in our country came to be regarded as the basic education from class I to VIII. Consequently, primary education was divided into two parts, namely, lower primary education (class I to V) and upper primary education (class VI to VIII). In Article 45 of our Constitution, it has been

declared that the state shall endeavour to provide, within a period, often years from the commencement of this Constitution, for a free and compulsory education for all children until they complete the age of fourteen, i.e. class I to VIII. However, in most provinces of the country, education of class VI to VIII is attached to both primary and secondary schools. According to the Directive of the Constitution, education from class I to VIII comes under the category of primary education.

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14.4.1 Primary Education in India

The Hunter Commission, 1882 was the first to express its views on the matter of deciding the aims of primary education. It had decided only two aims for primary education, which included the expansion of mass education and the education of practical life. Nowadays, around twenty to twenty-five aims have been given in the 'National Curriculum Framework for School Education' document published by the National Council of Educational Research and Training (NCERT) in November, 2000. In the National Curriculum Framework, 2005, more emphasis has been laid on national values and secularism. At present, the aims of primary education in India are as follows:

1. To provide knowledge of health related rules to children and train them in health stimulating activities.
2. To provide knowledge of children's mother-tongue (regional language) and their natural and social environment.
3. To develop a feeling of community among children, uplift them from class differentiation and train them in the art of living.
4. To encourage children to participate in cultural activities like social functions, folk songs, folk dance, etc. and develop cultural tolerance among them.
5. To develop social, cultural, moral, political and national values among children and to develop their character and morality.
6. To provide the opportunity of physical labour to children, develop respect for physical labour and activate their creative power.
7. To direct children to respect one another and train them to work with love, sympathy and cooperation.
8. To make children aware about environment pollution and develop scientific attitudes among them.
9. To acquaint children about the prophets of different religions and their teachings.

Curriculum of Primary Education in India

The 10 + 2 + 3 pattern of education was declared in the National Education Policy, 1968 and the National Council of Educational Research and Training (NCERT) prepared a Core Curriculum for the first 10 years of education in 1975. NCERT, in November 2000, presented another new framework of core curriculum

for the first ten years of education. The framework of the Core Curriculum for the first eight years of education is as follows:

A. Class I and II
   (a) One language: the mother-tongue/the regional language.
   (b) Mathematics.
   (c) Art of Healthy and Productive living.

B. Class III to V
   (a) One language: the mother-tongue/the regional language
   (b) Mathematics.
   (c) Environmental Studies.
   (d) Art of Healthy and Productive living.

Upper Primary Stage (3 years)
   (a) Three languages (the mother-tongue/the regional language, modern Indian language and English)
   (b) Mathematics
   (c) Science and Technology
   (d) Social Sciences
   (e) Work Education
   (f) Art Education (fine arts, visual and performing arts)
   (g) Health and Physical Education (games and sports, yoga, NCC, scouting and guiding)

The Central government expected that all Provincial governments would develop a similar curriculum for the first eight years of education. However, there are many drawbacks regarding the Core Curriculum. Firstly, the framework of 1988 is somewhat clearer than the framework of 2000, which is quite confusing. Secondly, it is very burdensome for the children of primary level. Thirdly, the basic connotation behind the three-language formula has been completely ignored. Lastly, by giving a new name to co-curricular activities, it has been placed beyond the reach of common man. The academicians working in NECRT are also helpless regarding the creation of new content every time. Therefore, they use grandiloquent and ornamental language to appease the government. Due to the confusing and ever changing policies, the core curriculum could not be implemented in the country till today. The repercussion is that different provinces of India continue to have different curriculums for primary education.

Importance and Need of Primary Education

Education is the basic means for human development. Therefore, it merits great importance in any human society. At present, education is divided into primary, secondary, higher and specialized categories in every society. Every level of education has its own importance, including primary education.

1. **Primary Education is the Foundation Stone of Education:** Language, the medium of communication is taught to children in primary school. They are trained in general human behaviour and reading skills, and their power of visualization and comprehension is also developed. These are the means to acquire an advanced education. Thus, primary education acts as the foundation stone for future education.
2. **Primary Education is the Basis of Personality Development:** Psychologists have arrived at the conclusion that the personality of a person is shaped mostly during their childhood. The future of a child depends on the type of foundation laid at this stage. It is in primary schools that the social, cultural, moral and character development of children takes place. Their personality is shaped at this stage.
3. **Primary Education is Mass Education:** At present, primary education is free and compulsory in all countries. Education which is compulsory for everyone is generally termed as mass education. This is the reason why it is later provided in the form of adult education to those adults who fail to acquire it in their childhood. If this decree of compulsion is followed strictly, it will definitely change the form of adult education. It will take the form of continuing education in place of literacy mission.
4. **Primary Education is the Education of Common Life:** When we say that primary education is mass education, it means that in primary education, everyone is educated to live a general life. On the other hand, higher education prepares us for different fields of life. Therefore, primary education is important for any society.
5. **Primary Education is a Complete Education for Most People in India:** In our country, junior primary education is yet to be made free and compulsory and the goal we are trying to achieve is only to make education from class I to VIII free and compulsory. It is also observed that only a few children go for further education after class VIII, and for them, primary education is complete education. Therefore, primary education becomes all the more important in India.

14.4.2 Universalization of Primary Education

When primary education was made free and compulsory in England, the problem before them was to make this education available to every child in the target age group. For this, they used the word universalization. At present, however, the universalization of free and compulsory education has a somewhat broad connotation. Article 45 of the Constitution of our country states that–'the state shall Endeavour to provide within a period of ten years from the commencement of this Constitution for the free and compulsory education of all children until they complete the age of 14 years.' Here, education of children till the age of fourteen years refers to education from class I to VIII for children between the age group of six to fourteen years. However, making free and compulsory education universally accessible holds no meaning unless there is a hundred per cent enrolment of children in the appropriate age group. A hundred per cent enrolment of children holds no

meaning unless there is a full retention of children enrolled in it, and they complete their education and succeed in it. From this point of view, universalization of free and compulsory primary education in India means:

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(a) **Universal Access:** Making education from class I to VIII accessible to all children between the age group of six to fourteen years.

(b) **Universal Enrolment:** Ensuring full enrolment of children from class I to VIII in the age group of six to fourteen years.

(c) **Universal Retention:** Retaining these children in schools and not allowing them to leave schools in between sessions.

(d) **Universal Achievement:** Ensuring complete success of these students up to class VIII.

The first aspect of this problem is that our government has not yet achieved the goal of making education from class I to VIII universally accessible to all children between the ages of six to fourteen years. As per the claim of the Central government, by the end of 2001, 94 per cent children between the ages of six to eleven years were provided the opportunity of primary education and 84 per cent children between the ages of eleven to fourteen years were provided the opportunity of upper primary education. However, the government data shows that in 2001, there were no primary schools in approximately two lakh villages and far-off hutments within a distance of one kilometre, no upper primary schools within a distance of three kilometres and approximately two crore children were devoid of their right to primary education. On the other hand, in 2001, the population of our country crossed 100 million and is increasing at a tremendous rate at present. Therefore, a large number of primary and upper primary schools will be needed in future.

The second aspect of this problem is to ensure full enrolment of children from class I to VIII between the ages of six to fourteen years. In this context, the condition of our country is very dreary. In some places where children are eager to take admission, schools do not exist, and in places where schools exist, all children do not take admission or their parents do not get them enrolled. At present, this is a problem, especially in the context of enrolment of the girls and children of scheduled castes, scheduled tribes and Muslims. The government data of 2001 shows that even in regions where primary schools existed, only 95 per cent children enrolled themselves in primary education. The enrolment percentage of the children of scheduled castes and scheduled tribes was only 65. As far as the enrolment of girls is concerned, it was even less than that of boys. However, the government data do not seem reliable and raises certain doubts.

The third aspect of this problem is full retention of children from class I to VIII between the ages of six to fourteen, i.e., to prevent them from leaving school in between the session. In 2008, the drop-out rate in class I to VIII is about 45 per cent. It means that only 55 per cent of the total students enrolled in class I reach class IX. In educational terminology, this is termed as wastage.

The fourth and the last aspect of this problem is to provide complete primary education to every child between the age group of six to fourteen years within the

stipulated time period. However, the reality is that nearly 40 per cent children do not complete their education within the stipulated time frame. They take more than eight years to complete their primary education curriculum designed for eight years. In educational terminology, this is termed as stagnation.

We have failed to accomplish the first aspect, i.e., to make education from class I to VIII accessible to all children between the ages of six to fourteen years till now due to the following reasons:

i. The first cause is the lack of resources. It was declared in the National Education Policy, 1986 to spend per cent of the budget on education. However, only 4 per cent is spent on education.

ii. The second cause is that even this meagre resource is not properly utilized. More than half of the money allotted in the budget for the expansion and uplifiment of primary education is siphoned off by corrupt individuals.

iii. The third cause is the lack of public cooperation. In the name of public cooperation, most institutions resort to public exploitation. They generally open schools in those areas where they expect a good return or benefit. Institutions organizing free education are few in number.

iv. The geographical conditions of our country are also a hindrance in this context. Establishing and functioning schools in small hutments located in distant, hilly, desert and forest regions is a very difficult task.

v. The fast growing population of our country also poses as a potent problem. The more schools are established, the more their demand grows.

The failure in accomplishing the second aspect of this problem, i.e., admission of all children between the age group of six to fourteen years is due to the following reasons:

(a) Lack of free and compulsory primary education act.

(b) Schools are devoid of resources and are dull and unattractive.

(c) Lack of teachers in schools; even those who are appointed remain absent.

(d) Poverty is another important reason as children from poor families remain busy either in household chores, working in the fields or doing labour jobs.

(e) Illiteracy and backwardness is another reason for the admission of all children between the age group of six to fourteen years.

The main reasons for the problem of retention of all children in schools are as follows:

(i) Lack of building, furniture, teaching aids and teachers as well as the absence of devotion and honesty among teachers towards their work.

(ii) Extensive and burdensome curriculum and emphasis on theoretical and book knowledge.

(iii) Lax administrative system.

(iv) Poverty, illiteracy and the backwardness of a large strata of society.

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The reasons for the problem of ensuring the completion of primary education within the stipulated time period are:

(a) The burdensome curriculum of primary education.

(b) Lack of consciousness of most of the parents towards the education of their children.

(c) Lack of devotion of most of the students towards their education.

(d) Defective examination and evaluation system.

14.4.3 Development of Primary Education in India

After 1960-61, the progress rate of primary education was quite satisfactory and about three crore students were increased per decade. At present, the progress rate of primary education is the same. However, the alarming fact is that there were about five crore children between the age group of six to fourteen in 2004-05, out of which, about three crore children dropped out in between sessions, and about two crore had not even enrolled themselves in primary schools. The second main problem in this context is that even at present, the wastage is about 45 per cent and stagnation is up to 40 per cent in class I to VIII. The third issue in this context is that even till 2007, around 15 per cent primary and 35 per cent upper primary schools could not be benefitted by the Black Board Plan and the schools benefitting from this plan did not get quality material. It is clear that we still have to work very hard for the expansion and upliftment of primary education. In this context, our government should not divide society by giving statements regarding special arrangements made for the education of children of backward classes, scheduled castes, scheduled tribes, minorities and girls. It should simply state that primary education would be made available to all children between the age group of 6-14 years. The education centres at this stage should be similar in infrastructure, curriculum and methods of teaching for all children.

Every State today finds it very difficult to cope up with the construction programme for primary school buildings and unless some drastic measures are taken, it would not be possible to cope with the requirements. As far as the provision of buildings for primary schools is concerned, it has been estimated today that nearly 50 to 60 per cent of primary schools lack their own school buildings. This is a very serious problem and unless it is taken up on a top priority basis, it would adversely affect not only the enrolment in backward areas, but also the qualitative improvement of primary schools.

Check Your Progress

7. What are the main aims of primary education in India?
8. When was curriculum of primary education in India declared?

14.5 GIRLS' EDUCATION: AN OVERVIEW

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The Indian government is committed to education for all. However, India still has one of the lowest female literacy rates in Asia. There are dramatic differences in literacy rates by place of residence, with rates in rural areas lagging behind rates in urban areas. In 1991, the urban female literacy rate was more than twice that of the rural rate, 64 and 31 per cent, respectively (RGCC, 1993). While there have, however, been substantial increases in literacy rates in both urban and rural areas, the gap between the two sectors has not narrowed appreciably.

There are several reasons for the low levels of literacy in India, not the least of which is the high level of poverty. Over one-third of the population is estimated to be living below the poverty line (The World Bank). Although school attendance is free, the costs of books, uniforms, and transportation to school can be too much for poor families. Poor families are also more likely to keep girls at home to care for younger siblings or to work in family enterprises. If a family has to choose between educating a son or a daughter because of financial restrictions, typically the son will be chosen.

Negative parental attitudes toward educating daughters can also be a barrier to a girl's education. Many parents view educating sons as an investment because the sons will be responsible for caring for aging parents. On the other hand, parents may see the education of daughters a waste of money because daughters will eventually live with their husbands' families, and the parents will not benefit directly from their education. Also, daughters with higher levels of education will likely have higher dowry expenses as they will want an educated husband. However, education sometimes lowers the dowry for a girl because it is viewed as an asset by the husband's family.

Status of enrolment

Although literacy rates in India are low, there has been a concerted effort to encourage girls to attend school, which should lead to higher literacy rates in the future. The India School Education Survey, conducted in 2002, aimed at assessing the availability of schooling facility for primary, upper-primary, secondary and higher secondary stages within the habitations (including SC/ST) in different population slabs. In case the facility is not available within the habitation, the distance at which it is available.

Primary stage

According to present survey, at primary stage total enrolment is 12, 29, 15,301, which includes 5, 75, 52,738 girls and 6, 53, 62,563 boys. These figures show that 46.82 per cent are girls and 53.18 per cent boys. In rural areas, percentage of girl child enrolment is 46.73, whereas in urban area, the same is 47.10 per cent. In rural area, Delhi has the highest percentage of girl child enrolment (50.70 per cent) while it is the lowest 42.04 per cent in Bihar. In urban area, Sikkim with 51.98 per cent is on the top and Himachal Pradesh with 44.30 per cent is at the

bottom. Overall, Meghalaya has maximum girl enrolment (50.48 per cent) and minimum is in Bihar (42.46). In comparison to Sixth Survey, total enrolment has increased by 26.68 per cent. At primary stage maximum enrolment (46.61 per cent) is in government schools and minimum (9.03 per cent) in private aided schools. Local body and private unaided schools have 29.40 per cent and 14.96 per cent of total enrolment respectively.

Upper primary stage

There are 4, 68, 45,845 children enrolled at upper primary stage. In this enrolment 44.00 per cent are girls and 56.00 per cent boys. In rural area percentage of enrolled girls (42.63 per cent) is comparatively less than that in urban area (46.58 per cent). Meghalaya has the maximum percentage of girl enrolment (51.99 per cent) and Rajasthan the minimum (34.66 per cent).

In comparison to the Sixth Survey, 37.49 per cent growth has been observed in the enrolment with 52.70 per cent in case of girls. In rural area, the growth in girl enrolment is 66.55 per cent whereas in urban area it is 33.60 per cent.

Secondary stage

There are 2, 18, 88,898 children enrolled at secondary stage. Out of these 41.51 per cent are girls and 58.49 per cent are boys. Percentages of enrolment in rural and urban areas are 57.59 and 42.41 per cent, respectively. In rural area, the percentage of enrolment for girls is 38.96 whereas in the urban area it is 44.98 per cent which shows a difference of 6.02 per cent. At secondary stage, Meghalaya has the highest percentage of girl enrolment (51.47 per cent) and Rajasthan has the lowest (29.33 per cent). In comparison to the Sixth Survey, the enrolment has increased by 43.82 per cent and girl child enrolment by 63.71 per cent. In the rural area, enrolment of girls has increased by 80.97 per cent while in the urban area it has increased by only 47.21 per cent.

Higher secondary stage

At higher secondary stage 1, 14, 37,883 children are enrolled including 41.24 per cent girls and 58.76 per cent boys. The rural area has 39.60 per cent of total enrolment. In rural area the percentage of girl's enrolment is 38.31 whereas in the urban area this percentage is 43.17. Kerala has the highest percentage of girls enrolled which is 55.01 and Bihar has the lowest 26.39 per cent.

In comparison to the Sixth Survey, the enrolment at higher secondary stage has increased by 50.52 per cent. The increase in rural and urban areas are 75.16 per cent and 37.81 per cent, respectively. In rural area, enrolment of girls has increased by 122.37 per cent and in urban area, by 54.26 per cent.

Improving literacy rates

There has been sharp improvement in the educational achievement of both males and females in India since the past several decades. In 1971, only 22 per cent of women and 46 per cent of men were literate (Register General and Census

Commissioner (RGCC), 1977). By 1991, 39 per cent of women and 64 per cent of men were literate (RGCC, 1993). By 2005–2006, total literacy rate of the country was 68.3 per cent, in which 58 per cent of women and 78 per cent of men were literate (source sample survey). Thus, there has been a substantial rise in literacy figures of women in merely thirty-five years. Due to advancements in literacy, the gender disparity in literacy has gone down since 1981. According to Sample Survey 2005–2006 the gender gap in literacy rate was 20 per cent.

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Table 14.3 *Literacy Rate in India*

Year	Persons	Males	Females
1901	5.3	9.8	0.7
1911	5.9	10.6	1.1
1921	7.2	12.2	1.8
1931	9.5	15.6	2.9
1941	16.1	24.9	7.3
1951	16.7	24.9	7.3
1961	24.0	34.4	13.0
1971	29.5	39.5	18.7
1981	36.2	46.9	24.8
1991	52.1	63.9	39.2
2001	65.38	76.0	54.0
2011	74.04	82.14	65.46

From this analysis one can infer that the female literacy rate (only half of the female population is literate) is still falling behind male literacy rate (three-fourth of the male population is literate). The rate of school dropouts is also found to be comparatively higher in the case of women. This higher rate of illiteracy of women is undoubtedly the reason for women's dependence on men and the fact that they are forced to play a subordinate role. The lack of education is the root cause for women's exploitation and negligence. Only literacy can help women to understand the Indian's constitutional and legislative provisions that are made to strengthen them. Thus, promoting education among women is of great important in empowering them to accomplish their goals at par with men in different spheres of life.

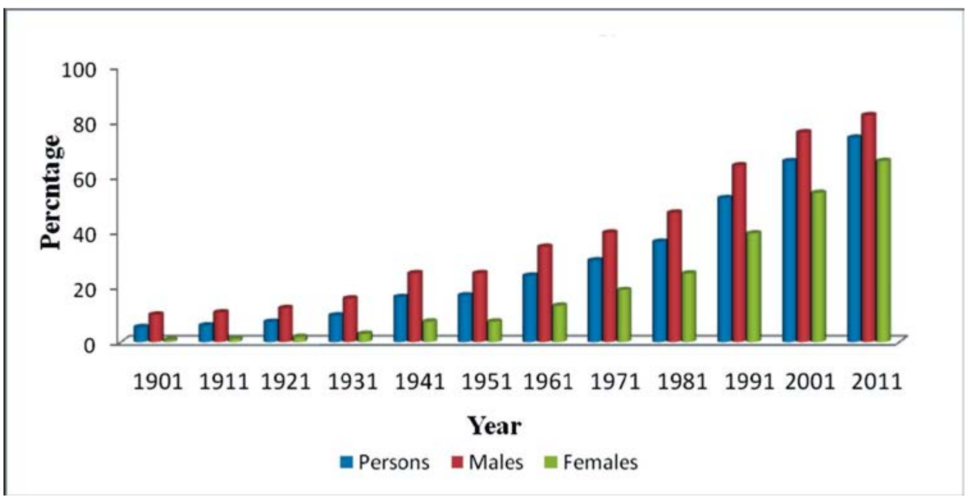


Fig. 14.3 *Literacy Rate in India*

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Table 14.4 *State-Wise Percentage of Female Literacy in the Country as per 2011 Census*

Sl. No.	Name of the State	Female Literacy
1	Andhra Pradesh	59.7%
2	Arunachal Pradesh	59.6%
3	Assam	67.3%
4	Bihar	53.3%
5	Chattisgarh	60.6%
6	Delhi	80.9%
7	Goa	81.8%
8	Gujarat	70.7%
9	Haryana	66.8%
10	Himachal Pradesh	76.6%
11	Jammu and Kashmir	58.0%
12	Jharkhand	56.2%
13	Karnataka	68.1%
14	Kerala	92.0%
15	Madhya Pradesh	60.0%
16	Maharashtra	75.5%
17	Manipur	73.2%
18	Meghalaya	73.8%
19	Mizoram	89.4%
20	Nagaland	76.7%
21	Orissa	64.4%
22	Punjab	71.3%
23	Rajasthan	52.7%
24	Sikkim	76.4%
25	Tamil Nadu	73.9%
26	Tripura	83.1%
27	Uttar Pradesh	59.3%
28	Uttarakhand	70.7%
29	West Bengal	71.2%
Union Territories		
1	Andaman & Nicobar Islands	81.8%
2	Chandigarh	81.4%
3	Dadra & Nagar Haveli	65.9%
4	Daman & Diu	79.6%
5	Lakshadweep	88.2%
6	Pondicherry	81.2%
All India		**65.46%**

Substantial disparities in literacy among the states

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The disparities in literacy figures among the states are also considerable. According to Table 14.4, the state-wise female literacy rate had an average of 65.46 per cent on an all-India basis in the 2011 census, the highest literacy rate being 92.0 per cent in Kerala and least literacy rate being 52.7 per cent in Rajasthan; while comparing the literacy rate of females the 2011 census shows an 11 per cent increase from 54.16 per cent to 65.46 per cent. The Government of India has been taking various steps and plans especially for women in every movement.

These literacy levels are significantly linked to the health conditions of the population. Among states, Kerala's infant mortality rate is the minimum and it has the maximum life expectancy. On the contrary, Uttar Pradesh and Bihar fall among the states with the lowest life expectancies in India (India Registrar General (IRG), 1996; IRG, 1995).

Considering India as a whole, a large number of states have extreme rural–urban gaps in female literacy. Six out of the twenty-nine states, have 25 per cent or less women in village areas, who are literate. In Rajasthan, the literacy percentage of women is below twelve in the rural areas.

14.6 PROBLEMS AT VARIOUS LEVELS IN SCHOOLS

It has already been established that the initiative of equal prospects is essential to the democratic ethic. Democracies are evaluated by how they achieve this endeavour. Samuel Bowles published an essay in *Exploring Socio-Cultural Themes in Education* titled as 'Unequal Education and the Reproduction of the Social Division of Labour', wherein he has commented, 'The ideological defence of modern capitalistic society rests heavily on the assertion that the equalising effects of education can counter the non-equalising forces inherent in the free-market system. It has been shown that many public schools are failing to enable students to lift themselves out of the cycle of poverty. The schools themselves become instruments of oppression instead of fulfilling this vital function. The principles of non-repression and non-discrimination thus help us draw the boundaries not only of legitimate democratic authority but also of the public realm of education'.

The development of a society can be gauged by the extent of educational inequality prevailing in the society. The occurrence of imbalanced allocation of educational means among girl/boy or men/women students encumbers every phase of development of the nation. As per the goals set by the World Conference on Education, all children, particularly girls, should have had complete access to quality education by 2015. However, the goal remains unaccomplished. For the development of the nation to be complete, education has to be provided to both sexes without any disparity. The data provided by UNESCO asserts that girls have less access to equal educational opportunities as compared to boys. The enrolment rate is almost comparable but the rate of continuance is much lower for

girls than boys. As a result, girls attain less education all over the world. There are multiple factors responsible for the disparity. For a better understanding, these factors have been discussed under four headings, namely, economic, domestic, school responsibility and cultural factors.

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1. Economic Factors

- **Parents' attitude:** Parents are sometimes not very keen to spend funds on the education of a girl child. Though they have equal affection for their children, irrespective of their gender, in households where finances are constrained the parents tend to be pro boys while investing in education. Parental investment in children's well-being can sometimes become gender biased. Many researchers have reached this conclusion on the basis of the common belief that sons take care of parents in their old age.
- **Cost of schooling:** High school fees also deter girls from accessing adequate education, as parents on some occasions are unwilling to spend their funds. As a result, either the girl child is denied education or is made to leave school in between. The parents are willing to face hardships and manage their funds to ensure adequate education for a boy of the family. Shovan Gosh and Sushmita Sengupta, while conducting a case study on cost of schooling of a girl child, realised that this difference is larger and is reflected more in poor family units of rural India. This is because in these areas the parents consider educating a boy as an investment for a secure future. In most households, the children do not have a say in deciding the amount of education they wish to receive as the parents have to bear the expenses of educating their children, which not only includes the school fees but also many indirect costs, such as travel, and the cost of several additional/extra non-academic activities. Also, in case of girls, the parents have to incur the added cost of maintaining socio-cultural traditions and guaranteeing security. Hence, the cost of educating a girl child becomes higher than that of the boys.

2. Domestic Factors

- **Household work:** In rural areas it has been observed that girls begin to take part in daily household activities at a very young age. The elder girl child is in many cases made to look after the younger siblings while the mother is involved with her work in the fields or other routine tasks. The studies have shown that this responsibility is mostly taken over by the daughters and not the sons of the family.
- **Willingness of parents:** According to social science professors, Fuller and Liang, if the household is headed by the female member the chances of the girl child being educated will be high as the female head has the authority to make decisions. In single parent households the financial crunch can be even more. Another important factor for the children of a household being well educated is if the parents are educated and realise the importance of the same.

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3. **Factors at School**

- **Participation in extra-curricular activities:** Fewer girls take part in the non-academic activities in school. This is because the schools often lack adequate facilities to enable girls to be a part of such activities. For instance, most of these activities take place after school and sometimes the students are not provided with transportation to participate in such activities. Hence, parents often discourage their ward from joining such activities.

  For example, Jacqueline et al. (2012) examined gender ratio and found approximately only 48 per cent of girls participated in such activities. It is an observation that the school makes no extra effort to provide facilities so that more girls can be a part of extracurricular activities. This is a common feature in most schools in the developing nations, particularly in rural areas. Participation of girls in sports is also very low as compared to boys. Muslim girls suffer due to the cultural restrictions, which prevent them from wearing short-length shirts or tight upper shirts; they are constrained from changing clothes or showering in any place other than their homes.

- **Lack of women teacher in school:** In countries such as Afghanistan, girls suffer gender inequality in schools due to the absence of a female instructor. Afghans do not approve of male teachers educating the girls. The same situation exists in Pakistan as well; parents have a tendency to discontinue girls' education after primary school. These countries continue to face this problem even now, as the equality of gender in other spheres is not taking place. This only has a negative impact on the women population of such countries.

- **Non-attendance:** Girl students tend to be more irregular at the school, which leads to poor grades. The factors responsible for this are sometimes related to household chores, which cause them to miss out school. In some cases lack of proper sanitation and toilets could be regarded as a factor as girls need proper toilet facilities during the menstrual cycle.

- **Facilities for girls in schools**: Parents want the girls to be safe and secure in school environment and they constantly worry about the lack of facilities. Sometimes schools fail to provide basic facilities, such as clean washrooms or transportation. Girl students need extra help and guidance and privacy on certain aspects, which the schools often fail to provide. This leads to low attendance. This, in turn, results in girl students lagging behind in classes and showing poor performance in their studies. According to UNICEF standards it is mandatory for schools to provide separate and clean toilets for all students.

- **Behaviour of the Teacher:** The attitude of the teacher towards the students is a very important factor as the students communicate the most with their teachers when in school. It has been observed that on many occasion teachers practise gender bias. Some teachers are not conscious of the language they use while interacting with students. The teachers sometimes pay attention

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only towards the bright students in the class. According to a study by R. Njau and S. Wamahiu on equity of gender, it has been found that in some parts of Africa girls have left school because of the attitude of the teachers towards the girl students in the class. It was assumed that boys perform academically better. Though this is not true as in most cases girl students all over the world have scored better than boys.

- **Lack of schools in the vicinity of the home:** Another factor, which reduces the access to education for girl students is the distance of the school. In rural areas, parents are not very keen to let girls travel to faraway places in order to attend school. Distance is one important determinant for dropping out of school, when it comes to girl students. Many studies conducted on this issue conclude that distance of the school plays a very important role. Parents are not comfortable if their daughter has to travel far. According to psychologist Mary Ainsworth, schools in the vicinity tend to have a positive impact on the enrolment of girls.

4. Cultural Factors

- **Early marriage:** Parents often marry their daughters off at a very young age, especially in rural areas. They are not keen to allow them to complete their education. In fact, in most villages, parents feel insecure if the girl is educated because they believe the more qualified she is, the more difficult it will be to get a suitable match. The PROBE team (1999) of India discovered that parents feel that the cost of marriage would increase if their daughter is educated. According to them, the girls from poor families are unlikely to receive any proposals if they happen to have high education. The same is the case in countries, such as Bangladesh.
- **Teenage pregnancy:** Many researchers state teenage pregnancy as considerable grounds for poor access of education for girls. Studies have pointed out that those girls who perform badly at school, or are dropouts, or belong to low economic status are more vulnerable to teenage pregnancy.
- **Cultural beliefs:** According to a survey undertaken by the NGO Save the Children, in 2005, religious beliefs and traditional norms often prevent girls from getting adequate education in most developing nations. In many cultures, even in present times, it is believed that the role of the woman is to take care of the house and bear children; and they do not require school education to perform these tasks. According to Professor Jane Falkingham and Angella Baschieri, in countries such as Tajikistan, girls are permitted to attend spiritual classes, which equip them with skills to become an ideal wife. The tradition of 'purdah' or seclusion of women in Muslim communities is another important factor contributing towards gender inequality in education. According to a research undertaken by UNESCO in 2010, the traditional values have a strong presence in the rural areas of most developing nations.

Thus we can say that there are many connected factors in the society which have a direct impact on the access of education for the women population. In some cases, these factors exist for both the genders. This study exposes the fact that these factors have a stronger impact on girls belonging to poor families in rural areas, than the urban population.

Need of some interventions

There are some interventions that can help improve the situation:

i. Locate schools closer to residential areas of students.
ii. Establish a committee in schools to look into girl-related issues and monitor the development of girls in the school. Teachers should be included in the committee.
iii. It is most essential to raise the awareness among the parents. Parents need to be educated about the right to education for both girls and boys.
iv. Schools must organise non-academic workshops which focus on aspects like confidence building, self-esteem, personal defence, well- being and relevance of education.
v. Grant scholarships for children who are capable and are from inferior backgrounds.
vi. Train the teachers to manage the students in a mature manner and have a positive attitude towards all students.
vii. Try to establish outreach schemes of education to enable more children to be educated.
viii. School management should include more women members so that female oriented policies can be suggested. Encourage parent-teacher interactions.
ix. Schools to have enhanced spending capacities in order to provide better services. Schools should try to provide the essential reading material so that parents do not have to incur the textbook costs for their child.

Equality in the learning practices

Equality in learning practices, involves providing equal learning opportunities for both boys and girls. The process also involves giving adequate attention and managing both equally. The provision for same curriculum to both is essential and on the basis of this the teaching style should be adapted to accommodate both. The entire teaching process should not reflect any kind of gender bias and should be free from labels and typecasts. Both should have the access to explore their academic as well as non-academic skills.

Need of some interventions

- Proper training and guidance should be imparted on the topic of gender to individuals responsible for developing the curriculum, authors of textbooks, and school supervisors.

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- Guidance and training should be provided to teachers to ensure inclusive teaching practices so that they are equipped to deal with students, who have a disadvantage because of poverty, background, language, or gender inequity.
- Safety measures in school should be enhanced by providing sufficient services, such as transportation, washrooms, and so on.
- Teachers should be prohibited from using corporal punishment so that the students are not fearful of attending school.
- Teachers should have a uniform code of conduct.
- Annual reports should be submitted by the teachers to enlighten the school authorities on the initiatives taken by them to improve interactions between students and teachers and vice versa.
- Girls should be encouraged to take part in activities of a technical nature as well.
- Gender stereotypes which highlight that girls lack the aptitude to choose the science stream as they are fit for humanities, should be abolished.
- Teachers should educate all students about their rights and duties and make them aware of safety precautions to be taken during emergencies.
- Fast learning programmes should be introduced for students who are living in sensitive parts of the world.

Equality of academic achievements

Equality of academic achievements refers to a system wherein girls and boys should have equal avenues to accomplish and achieve their dreams. These achievements should be purely as per the efforts and talent of the student and should not be based on any preconceived perceptions that are influenced by their gender. Schools should encourage interests of the students and not always try to evaluate their performance based on the set pattern of assessment. While the evaluation system is essential, it should not be the only yardstick. These restricted assessments can deter the talent and confidence levels and can lead to creation of doubts in the minds of the students. Both girls and boys should have equal freedom to choose their career preference and should be provided with similar opportunities to be able to achieve them.

According to a survey conducted by Programme for International Student Assessment (PISA) in 2006, it was pointed out that there was a tremendous gap in achieving gender equality in this dimension as the girls and boys were being judged only on the basis of their performances. Girls always tended to reflect lower interest for mathematics while boys scored better in maths. Test scores alone should not be regarded as indicators. It should be explored whether both are getting equal opportunities and sometimes even if the performance is at the same level, it does not necessarily indicate equitable treatment. These aspects stress the significance of interpreting the classroom dynamics adequately and trying

to find out how these aspects influence the future choices and correct selection of career options.

Need of some interventions

- Teachers should be trained in order to fairly assess the performance of the students. Their perception should not be influenced by the gender of the student. They should provide a valid feedback for the development of the student.
- The assessment pattern should be designed in such a way that it can cater to a variety of students.
- The pattern of examination should be based on an assortment of questions, such as multiple choices, long answers and one liners. This will provide students a fair chance to do well in their academics.
- Assessments should be based on verbal as well as written evaluation. The students should be assessed for their individual as well as group performance.
- All assessments should be free from all kinds of gender biases. This will enable reviews to be fair and devoid of stereotypes. The content used for assessment should not contain any material which highlights gender bias.

Equality in opportunities after school

Equality of opportunities after school comes into practice after the students have completed their formal education. This equality is about providing equal status to both men and women in the society. Both should have equal access to available resources, to be able to gain and contribute towards the activities of the society. This means that both should have equal career provisions and should be awarded the same benefits of a job if qualification and experience are similar in both cases.

All the dimensions related to gender equality are connected. For all of them to work, the link has to be maintained at every stage. In many cases, the first two dimensions are maintained but the gender bias comes into action at the third and the fourth dimension and thus the situation remains the same. Many researchers have concluded that academic achievements for girls does not necessarily lead to strong financial positions or political involvements. To achieve equality in this dimension, there should be involvement of the governing party of the nation so that equality of gender is attained after finishing education. Because the competitive economic market is a separate sector altogether. Equality there cannot just happen with equality in the field of education.

Need of some interventions

- Endorsement and implementation of labour laws that guarantee equality in opportunity and remuneration.
- Initiation of collective campaigns, which mobilise views about the status of women/girl population.

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- Encouragement of legal reforms that guarantee security and equal rights for women in the society in matters of family law, citizenship, property ownership, political participation, inheritance, and the employment sector.
- Steps by the government of the country to enhance the economy so that poverty can be eradicated and people have better living conditions. This will encourage parents to educate their children irrespective of their gender.
- Encouragement of girls to take part in non-academic training programmes which help improve their employment avenues. Ridding the society of traditional beliefs, which restrict women from taking the initiative to join these programmes.
- Development of programmes which take into account all dimensions of equality. The dimensions will help in understanding how the overall system can be improved and benefit both boys and girls.

The four dimensions of gender equality in the field of education help in understanding the extent of gender parity, which exists in every society. It helps in acting as a yardstick and helps the educators to develop policies and curriculum which are not based on stereotype views of gender. Schools in India are trying to meet the target of the Millennium Development Goal of gender parity in education, which was set by UNICEF. The target was to be achieved by 2015. UNICEF is able to judge the extent of the success a nation has attained by measuring the turnout rate and Gender Equality in Education Index (GEEI). India has gained tremendous success in few areas, but still needs to go a long way especially in rural areas. The U.S. Department of Commerce had submitted a report in 1998, which stated that the major hurdle in India in education of girls/women is absence of basic amenities in schools, failure to employ women teachers and the focus of text books on gender bias. Women are often projected as the weaker sex in terms of strength as well as intellect.

Check Your Progress

9. What are the main reasons for low literacy among girls in India?
10. How do cultural factors influence girls' education in India?

14.7 ANSWERS TO 'CHECK YOUR PROGRESS' QUESTIONS

1. Sarva Shiksha Abhiyan (SSA) is the national flagship programme launched in 2001–02 for achieving the goal of Universalization of Elementary Education (UEE) through a time-bound approach in partnership with states and local bodies. It is also an attempt to provide an opportunity for improving human capabilities to all children (6–14 years age), through provision of community-owned quality education in a mission mode.

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2. The three major objectives of the DPEP are to (i) Reduce drop-out rates to less than 10 per cent, (ii) Reduce disparities among gender and social groups in the areas of enrolment, learning achievement, and so forth to less than 5 per cent (iii) Improve the level of learning achievement compared to the baseline surveys.
3. EGS and AIE are vital components of SSA for achieving Universalization of Elementary Education (UEE). EGS and AIE programmes also envisage centres for street and slum children, remedial coaching for children enrolled in formal schools, short duration summer camps, and others. The ratio of sharing of expenditure between the Centre and States on this component is 75:25 respectively. In case of support to voluntary agencies (VAs), Central Government bears 100 per cent cost (within the overall cost ceilings). The EGS and AIE, being part of SSA, have no separate budget provision and expenditure on the schemes is incurred from the overall budget provision of SSA.
4. In July 2003, the Government of India approved a new programme called 'National Programme for Education of Girls at Elementary Level' (NPEGEL) as an amendment to the existing scheme of Sarva Shiksha Abhiyan (SSA) for providing additional support for education of underprivileged/ disadvantaged girls at the elementary level. The scheme is implemented in Educationally Backward Blocks (EBBs) where the level of female literacy is below, and the gender gap above the national average in blocks of districts which are not covered under EBBs but have at least 5 per cent SC/ST population and where SC/ST female literacy is below 10 per cent, and also in select urban slums.
5. Pre-primary level education is meant for the children between the age of 3 and 5 years. It is designed to work on their physical, mental, emotional, and social development, etc. This kind of learning takes place in a group setting which is generally named as nursery school education or kindergarten education. These group settings are promoted and specially designed to cater to the needs of the children, provide them care they need and supervision in the substance they learn outside of their homes. In 1986, National Policy for Education (NPE) has taken big strides towards ensuring that all children get the benefit from the early education. NPE has given it high priority. To guarantee this to every child, it has been integrated with Integrated Child Development Services (ICDS).
6. Some of main objectives of pre-primary level of education are as follows:
    i. To give the child opportunities to develop different interests and skills of different kinds. These skills the child might use to gain better employment options in the future
    ii. To provide comprehensive and continuous medical supervision. This includes the role of school in giving an environment and teach them

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basic skills necessary for the development of good physique, muscular coordination and motor skills.

iii. Language development among pre-school children should also be of concern

iv. To develop the ability in a child to express his thoughts and feelings clearly.

v. To stimulate the intellectual curiosity and help them to understand the world to foster new interest through opportunities to explore, investigate and experiment with the world around

vi. To develop healthy habits like personal hygiene such as dressing, toilet habits, eating, washing, cleaning etc.

7. At present, the main aims of primary education in India are as follows:

   i. To provide knowledge of health related rules to children and train them in health stimulating activities.

   ii. To provide knowledge of children's mother-tongue (regional language) and their natural and social environment.

   iii. To develop a feeling of community among children, uplift them from class differentiation and train them in the art of living.

   iv. To encourage children to participate in cultural activities like social functions, folk songs, folk dance, etc. and develop cultural tolerance among them.

   v. To develop social, cultural, moral, political and national values among children and to develop their character and morality.

   vi. To provide the opportunity of physical labour to children, develop respect for physical labour and activate their creative power.

8. The 10 + 2 + 3 pattern of education was declared in the National Education Policy, 1968 and the National Council of Educational Research and Training (NCERT) prepared a Core Curriculum for the first 10 years of education in 1975. NCERT, in November 2000, presented another new framework of core curriculum for the first ten years of education. The Central government expected that all provincial governments would develop a similar curriculum for the first eight years of education. However, due to the confusing and ever changing policies, the core curriculum could not be implemented in the country till today. The repercussion is that different provinces of India continue to have different curriculums for primary education.

9. There are several reasons for the low levels of literacy in India, not the least of which is the high level of poverty. Over one-third of the population is estimated to be living below the poverty line (The World Bank). Although school attendance is free, the costs of books, uniforms, and transportation to school can be too much for poor families. Poor families are also more likely to keep girls at home to care for younger siblings or to work in family enterprises. If a family has to choose between educating a son or a daughter

because of financial restrictions, typically the son will be chosen. Negative parental attitudes toward educating daughters can also be a barrier to a girl's education. Many parents view educating sons as an investment because the sons will be responsible for caring for aging parents. On the other hand, parents may see the education of daughters a waste of money because daughters will eventually live with their husbands' families, and the parents will not benefit directly from their education.

10. According to a survey undertaken by the NGO Save the Children, in 2005, religious beliefs and traditional norms often prevent girls from getting adequate education in most developing nations. In many cultures, even in present times, it is believed that the role of the woman is to take care of the house and bear children; and they do not require school education to perform these tasks. According to Professor Jane Falkingham and Angella Baschieri, in countries such as Tajikistan, girls are permitted to attend spiritual classes, which equip them with skills to become an ideal wife. The tradition of 'purdah' or seclusion of women in Muslim communities is another important factor contributing towards gender inequality in education. According to a research undertaken by UNESCO in 2010, the traditional values have a strong presence in the rural areas of most developing nations. Thus we can say that there are many connected factors in the society which have a direct impact on the access of education for the women population. In some cases, these factors exist for both the genders.

14.8 SUMMARY

- Sarva Shiksha Abhiyan (SSA) is the national flagship programme launched in 2001–02 for achieving the goal of Universalization of Elementary Education (UEE) through a time-bound approach in partnership with states and local bodies.
- The District Primary Education Programme (DPEP) launched in 1994 is a Centrally Sponsored Scheme for holistic development of primary education covering Classes I to V.
- After Independence, the Government of India realized the significance of elementary education as it is the base of progress and accordingly incorporated Article 45 in the Constitution. Since the progress in the field was not in accordance with the provisions of this Article, it was considered necessary to amend it to give more impetus.
- The Janshala Programme aims at supporting the efforts for UEE by providing primary education to the children from SC groups, minorities, working children and children with special needs.
- Pre-primary level education is meant for the children between the age of 3 and 5 years. It is designed to work on their physical, mental, emotional, and social development, etc. This kind of learning takes place in a group setting

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which is generally named as nursery school education or kindergarten education

- Education is the basic means for human development. Therefore, it merits great importance in any human society. At present, education is divided into primary, secondary, higher and specialized categories in every society. Every level of education has its own importance, including primary education.
- Making free and compulsory education universally accessible holds no meaning unless there is a hundred per cent enrolment of children in the appropriate age group.
- At present, there is no shortage of trained male and female teachers in the country; the only delay occurs in their appointment. However, in the field of primary education, there still exist some problems that need to be remedied.
- At present, education is placed in the Concurrent List of our country. The organization of education at any level is the joint responsibility of the Central and the State governments.
- At present, these primary schools may be divided into two broad categories, namely, government and non-government schools. Government schools may further be divided into two categories, i.e., schools run by different ministries of the Central government and schools run by different departments of the Provincial governments.
- Though wastage and stagnation occur at the secondary and higher education levels, at the primary level wastage and stagnation is prevalent to such an extent, that it is a cause of great concern as it is a mass education and needs to be achieved compulsorily by everyone.
- The Central Government should immediately make a provision of 6 per cent in its budget for education and increase it to 10 per cent in the near future. With this increase in finance, it should universalize primary education, making it accessible to everyone and legislating a compulsory primary education act.
- To reduce stagnation at the primary level, the Kothari Commission suggested reforming the examination system. It suggested that either class I-II , class I-III, class 1-IV or class I-V of primary education should be treated as one single unit, and students should be allowed to complete it at their own pace
- The aims of primary education in our country are clearly defined and its core curriculum is prepared keeping in those aims in mind. In the meantime, many effective methods of teaching at the primary level have been developed and an array of trained teachers has also been organized.
- Parents want the girls to be safe and secure in school environment and they constantly worry about the lack of facilities. Sometimes schools fail to provide basic facilities, such as clean washrooms or transportation.

- Another factor, which reduces the access to education for girl students is the distance of the school. In rural areas, parents are not very keen to let girls travel to faraway places in order to attend school.
- Parents often marry their daughters off at a very young age, especially in rural areas. They are not keen to allow them to complete their education.
- According to a survey undertaken by the NGO Save the Children, in 2005, religious beliefs and traditional norms often prevent girls from getting adequate education in most developing nations.
- According to a survey conducted by Programme for International Student Assessment (PISA) in 2006, it was pointed out that there was a tremendous gap in achieving gender equality in this dimension as the girls and boys were being judged only on the basis of their performances.
- Many researchers have concluded that academic achievements for girls does not necessarily lead to strong financial positions or political involvements.
- The four dimensions of gender equality in the field of education help in understanding the extent of gender parity, which exists in every society. It helps in acting as a yardstick and helps the educators to develop policies and curriculum which are not based on stereotype views of gender.

14.9 KEY WORDS

- **Motor skill:** A motor skill is a learned ability to cause a predetermined movement outcome with maximum certainty. Motor learning is the relatively permanent change in the ability to perform a skill as a result of practice or experience. Performance is an act of executing a motor skill.
- **Article 45:** It says that the State shall endeavour to provide early childhood care and education for all children until they complete the age of six years.
- **The Hartog Committee:** Sir Philip Joseph Hartog committee was appointed by the British Indian government to survey on the growth of education in India.
- **Kothari Commission:** National Education Commission, popularly known as Kothari Commission, was an ad hoc commission set up by the Government of India to examine all aspects of the educational sector in India, to evolve a general pattern of education and to advise guidelines and policies for the development of education in India.
- **Registrar General and Census Commissioner:** It was founded in 1961 by Government of India for arranging, conducting and analysing the results of the demographic surveys of India including Census of India and Linguistic Survey of India.

- **Gender Equality in Education Index (GEEI)**: This is a measure developed to draw on existing data sources to consider gender equality in education in more dimensions than simply enrolments.

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14.10 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. What are the main goals of Sarva Shiksha Abhiyan (SSA)?
2. What are the major components of the District Primary Education Programme (DPEP)?
3. Write a short note on the constitutional provisions for compulsory elementary education in India.
4. Explain the need and significance of primary education in India.
5. What, according to the Kothari Commission, are the main reasons for wastage and stagnation at the primary level?
6. How do economic factors influence girls' education in India?

Long-Answer Questions

1. Discuss the role of sub-missions as review and support mechanisms for Sarva Shiksha Abhiyan (SSA) implementation.
2. Analyse critically the major achievements under District Primary Education Programme (DPEP).
3. Analyse the significance of gender equality in the field of education in India.

14.11 FURTHER READINGS

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